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ORIGINAL ARTICLES.

ON THE SIGNIFICANCE OF TRAUMATIC CRANIAL DEFECTS WITH REPORT OF CASE.*

BY ARMIN P. MUELLER, M. D.
MILWAUKEE.

The question as to whether a traumatic defect of the skull in itself may be the cause of a train of serious intellectual and motor disturbances, and in particular epilepsy, has long been a subject of contention among surgeons. Two schools of widely different, in fact, opposite views, are arrayed against each other on this point. The one, headed by Kocher, and strongly supported by a review of a series of cases treated in Kocher's clinic,[1] holds the position that a defect *per se* is of little consequence, and that closing it not only does no good, but may seriously aggravate the trouble. The other school, of which V Bergmann may be said to be the advocate, and based upon an opinion derived from an equally convincing review of cases, holds that a skull defect is never a harmless entity to him who bears it, and that most cases of epilepsy can be prevented by a primary, and many cured by a secondary closure. Kocher lays great stress upon augmented intracranial pressure as an etiologic factor in traumatic epilepsy, and in such cases recommends "Druckentlastung" *i. e.* decompression. Berezowski,[2] in his well known article "On Conditions Requiring Decompression", agrees with Kocher in his belief that such defects have no injurious consequences. Kocher further cites 55 cases from the literature, in not one of which any defect was closed, the operation consisting of excision of part of the cortex, excision of cysts, separation of adhesions, removal of depressions, etc., in the majority of which there was complete recovery, and in a few vast improvement. This to show that the defects *per se* were not responsible for the condition.

*Read before the Milwaukee Medical Society, April 23, 1907.

In order to throw some light on this perplexing problem various authors have reported lists of cases in support of one or the other of these contentions. Although the statement is often made[3] that an individual with an opening in the skull is especially liable to injury, it is a curious fact that not a single case has been reported in which an injury sustained was directly attributable to an existing skull defect (Bunge,[4], Schroeder[5]).

The record of cases is increasing in which large defects were unattended by any untoward sequelæ whatever. I wish to report such a case this evening. It is of interest not only for this reason, but from the fact that the conditions for a good recovery, without symptoms of cerebral irritation, were extremely unfavorable. Dr. L. C. Tisdale saw this case with me.

E. S., aet. 34 years; truck-gardener. On Sept. 28, 1905, while in a livery stable he was kicked in the head by a horse. When seen, about fifteen minutes later, he was semi-comatose and very restless, throwing himself about on the couch when attempts were made to rouse him. No apparent paralysis. Pulse 80 and full. The patient presented two rather small scalp wounds: one, about half an inch in length just behind the right external angular process of the orbit; the other, slightly longer, just in front of and above the ear on the same side. Both wounds were filled with dung. The pupils did not respond to light. There was extravasation of blood under the bulbar conjunctiva of the right eye, and the patient was badly bruised about the body. When the scalp wounds had been cleansed of the filth, the posterior one began to bleed and with the hemorrhage particles of brain tissue drained off. When the patient arrived at the hosipital the rectal temperature was 95° F, pulse 80 and of high tension, and he vomited several times. After a delay of about three and one-half hours, a horse-shoe incision was made, beginning in the anterior wound and ending above the ear, thus leaving the posterior wound between the two extremities of the incision. When this flap was turned down a large area of depressed bone was exposed. The largest fragment had been forced upward and tightly wedged in beneath the cranial vault. Its lower portion was driven through the dura into the brain. With great care very little brain tissue was lost. The depressed area consisted of five fragments, which after removal left a skull defect 6.5 by 4 cm., involving portions of the temporal, parietal, and sphenoid bones, thus invading the anterior and middle cranial fossæ. From this defect a fissured fracture extended vertically downward, the length of which it was impossible to trace. The anterior branch of the middle meningeal artery, torn by the fracture, was tied, gauze drains passed down to the dura and the flap lightly sutured. The patient remained in partial coma for three days, which turned into an active delirium, temperature 101°. Complained of intense headache. On the fourth

day, with the rise of temperature, an erysipelatous swelling appeared, closing first the right eye, extending across the bridge of the nose to the left eye, down the right cheek and up the scalp till the entire side of the head was intensely swollen. The wound discharged large quantities of pus. On the eighth day the swelling had subsided. Patient complained bitterly of headache. Because two horses had died of lockjaw in this stable a short time previously, the patient was given 30 *c.c.* of antitetanic serum. The wound was healed in four weeks. On about the 12th day, when the patient began to make more use of his facial muscles, a partial paralysis became very noticeable on the side of the injury, but motion was regained in a few weeks. The patient still has a paralysis of the par frontalis of the occipito-frontalis muscle. This is due to the incision in this region, of which this paralysis, according to Harvey Cushing[6], is the inevitable result. It is due to the division of the upper twigs of the facial nerve, and is, as a rule, permanent. A month after the injury the man began to do light work, digging out vegetables and picking them up. Stooping never caused the slighest disturbance. At present, one year and nine months after the injury, he works very hard at his occupation, in all extremes of weather, and with the exception of the brow paralysis, which is without consequence, is entirely free from motor or psychical symptoms.

I believe it may be taken for granted that in this case there are firm adhesions between the brain, the dura and the muscle flap. Yet this patient presents no symptoms.

On the other hand, the symptoms produced by a defect may consist of headache, dizziness, flashes of light before the eyes, giddiness on stooping, attacks of unconsciousness, eye symptoms (such as scotoma), genuine and Jacksonian epilepsy (at times terminating in death), loss of inhibition, alcoholism, motor disturbances, insanity, and so forth.

Since König's[7] historic case, reports of cases have become very numerous in which, when serious irritation did follow a defect, closure of the latter was followed by the happiest results. König, in his well known case was able to cure a young man who had sustained an extensive defect in consequence of a complicated skull fracture, of frequent epileptic attacks accompanied by dullness and apathy bordering on imbecility, by the König-Müller[8] osteoplastic operation, which was here done for the first time. Von Bergmann regards such defects as predisposing to epileptic attacks, especially in the young.

A great deal of importance is attached by all writers on the subject to adhesions forming between the brain dura and scalp, and attributing to these a great many of the consequences of skull injuries. The only manner in which adhesions can be responsible for cerebral irritation, it seems to me, is by producing fixation of, or traction

upon, a particular portion of the brain. This condition has been well described by Macewen[9] so long ago as 1888. He says in part: "When injury has been inflicted on the surface of the cerebrum, followed by plastic effusion and cicatricial formation, the superficial substance is apt to become soldered to the membranes, when these remain intact, which in turn may be soldered to the skull, or in the event of their detachment, the brain may become directly adherent to the bone. Thus the surface of the brain becomes anchored, or soldered, to its rigid walls. It has no longer the free play within its water bed to expand and contract according to the varying states of the circulation. Each variation produces a dragging of the brain at that spot, and through it the whole hemisphere at least is affected. Any sudden physical effort pulls on the brain, producing a slight shock, a momentary disturbance just as if the cerebrum had received a blow. Vertigo results. People affected in this way cannot rise up quickly or perform any sudden movement of the body or head without experiencing a sensation of giddiness which sometimes causes them to drop. Following upon this the grey matter of the cortex, immediately surrounding the cicatrix, by the incessant movement is apt to become unstable and produce fits. Some cases of traumatic epilepsy are thus caused."

The traction in any case cannot be very great since the brain is encased in a bony cavity and incapable of a great deal of motion. On the contrary, in the case which I reported, the defect lies directly beneath the temporal muscle, the fragments which were removed having normally formed part of its bony attachment. This portion of the strong temporal muscle is at present unquestionably firmly adherent to the dura and the dura to the brain, and at each firm compression of the jaws, it would be logical to assume that marked traction upon this portion of the brain would result. The patient, however, does not complain of any symptoms referable to such a condition, so that either adhesions are absent in this case, which is very improbable, or even strong traction on the brain does not always cause symptoms. Considerable time devoted to looking up the literature on this subject, *i. e.*, the effect on the brain of a muscle adhering to the dura and cortex and causing traction, has not disclosed a reference to it. Indeed, Harvey Cushing,[10] in his most recent article, in speaking of the advantage of the intermusculo-temporal operation says: "it is carried out in a region which is protected by muscles that can be closed over the opening in the skull. It consequently is not necessary to preserve and to replace the bone in the defect." In this operation which he describes, however, the wound heals by primary union, and if adhesions do form, they may be so slight as to be disregarded.

From a careful perusal of upwards of a hundred cases bearing on this subject, with which I met in the literature, and the comments attached thereto, the following data may be drawn:

The *location* of the defect apparently bears no relation to the appearance or non-appearance of genuine or Jacksonian epilepsy or other brain symptoms. It is difficult to reconcile this fact with the opinion of Hughlings Jackson who, in 1864, was the first to call attention to focal epilepsy, and who maintained that it is invariably due to organic disease of some kind adjacent to the fissure of Rolando. Among these cases of Jacksonian epilepsy defects of the frontal, parietal, temporal and occipital bones were noted on both the right and left sides.

As to *age* the oldest patient who developed epilepsy was 46. The youngest, suffering from this disease following a traumatic defect was 18 months of age (reported by Bunge).

The *size* of the defect seems to have little bearing on the probable occurrence of secondary symptoms. The largest defect was one reported by Schroeder, following the extirpation of an epithelioma of the vertex of the skull in a man of 76. This defect measured 4x5½ inches. He remained entirely free from symptoms (after 1 year and 5 months). The smallest defect complicated by fits was the size of a quarter in the left frontal bone in a man of 24.

The case in which the largest quantity of brain tissue was lost (1½ oz.) suffered from headache and dizziness on stooping, but no other symptoms (age 16 yrs.). Another case in which only a very small quantity was lost developed severe attacks of epilepsy within 2 months.

Out of 13 available cases, the shortest period in which epilepsy occurred, from the time of the injury, was one month; the longest 15 years. Excluding the latter case, which is rare, the average latent period was 6⅝ months.

In regard to *infection,* the deductions may be erroneous, but in this list, in the majority of instances, when the cranial defects were complicated by infection, the cases turned out badly. Most of them were followed by headache, giddiness, and many by epilepsy. In the cases healing by primary union, the reverse was true, a few suffered from epilepsy, etc., but the majority remained free from symptoms.

Out of 37 cases of traumatic skull defect, with an average observation period of 3 years and 3 months, 12 remained well, 12 suffered from a variety of ailments, 12 developed epilepsy, and one died of meningitis. These deductions agree with Kocher's report, in which

out of 13 cases, only 5 remained well. Of v. Bergmann's[12] cases, 4 were epileptics, and 2 out of 11 were incapacitated. On the other hand, according to Brewitt[13], of 38 cases treated in Prof. Körte's clinic, in which the opening in the skull was closed primarily, 24 entirely recovered, 2 had slight disturbances, 2 were unable to earn a living, 2 died, and 2 disappeared. In 4 cases the defect was closed by a secondary plastic operation. 3 of them entirely recovered, and one was cured of epileptic seizures.

It was not my intention to include the treatment of skull defects in this paper, but a resumé of the more important methods of closing them secondarily may not be out of place. They are classified by J. Hogarth Pringle[14] of Glasgow, as follows:

1. The implantation of decalcified bone as suggested and employed by Senn[15].

2. The use of calcined bone (Barth).

3. The use of bone which has been sterilized by boiling (Westermann).

4. The implantation of bone removed from another site in the same patient, e. g., the surface of the tibia. (Seydel[16]).

5. The implantation of bone from another species of animal.

6. The implantation of metal plates, e. g., aluminum (Booth).

7. The use of celluloid plates. (Fraenkel[17]).

8. With the object of preventing the formation of adhesions between the dura, the brain, and the margin of the bone, gold leaf has been employed by Beach, india rubber tissue by Abbe, egg membrane by Freeman.

9. The osteoplastic method of König and Müller which consists in making a skin and bone flap, the latter being a thin layer of external table, cut with a chisel from the skull in the neighborhood of the defect, and turning this flap to cover the opening."

Recently Carl Beck[18] recorded a method in which part of the temporal fascia with the periosteum beneath it is raised and turned over the defect, the periosteum remaining on top.

Brewitt and Stieda urge the earliest possible closure of traumatic defects, as the older the defect, the more pronounced are the symptoms.

Kocher reports a case of Jacksonian epilepsy in which he operated after 8 years, separating adhesions, removing a spicule of bone from the brain, but leaving the defect. The man had a fit on the same day, later had a series of attacks daily for almost a week, at the end of which he made an epileptic exit.

Occasionally new bone is spontaneously reproduced by the dura

and the gap filled in, but this is rare. Goetz[20] has recorded a case in which a defect measuring 8.5x6.5 cm. was completely covered in this way.

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THE EARLY AND QUALIFYING DIAGNOSIS OF TUMORS OF THE URINARY BLADDER.

BY G. KOLISCHER, M. D.

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The surgical tenet, that the therapeutic success in dealing with neoplasms goes at straight ratio with the date of their discovery, also holds good in bladder tumors. And that is true not only for the malignant growths, but also for the benign tumors of this viscus. The early recognition of a benign tumor is not only important, because timely operation stops at once and for all the so frequently occurring exhausting hemorrhages, and often does away with a great many annoying subjective symptoms, but it also of very great value in a technical direction.

It is most evident that the dignity of interference will be less so long as the tumor is very small: in early stages an endovesical operation, performed through an operative cystoscope, will furnish an

excellent result, while if the tumor is let to grow beyond a certain size, this way of operating may become extremely difficult or even impossible, so that operations have to be resorted to that necessitate the opening of the bladder.

It is furthermore not an infrequent occurrence that an originally single benign villous polypus will in course of time, one is induced to say, produce a number of secondary growths of the same character. It is a fact that, as a rule, these secondary smaller tumors will crop up out of places that are opposite to, and in contact with, the ends of the branches of the original tumor, so that one hardly gets away from the idea of "contact infection."

It finally may come to such a condition that the inner surface of the bladder is studded with villous polypi, whose removal is an extensive and very difficult undertaking; the injuries of the mucosa, inflicted by such numerous incisions, might even prevent the suturing up of the viscus, always such a desirable point in bladder surgery. All this could have been prevented by an early diagnosis.

Another point: Some authors claim that benign tumors of the bladder have a tendency, after a certain length of time, to degenerate into malignant tumors. While not all authorities share this belief, still the possibility of such a change cannot absolutely be denied.

That the early diagnosis of a malignant tumor is an essential surgical postulate, is a point in which all surgeons coincide. To mention some special features: Hemorrhages due to malign bladder tumors are as a rule of such a character as to undermine rather quickly the constitution of the patient; malign neoplasmata in their later course quite often produce severe cystitis, pernicious on account of the torturing subjective symptoms, and on account of the subsequent infection of the upper urinary tract.

It is an admitted fact, that the ureters enjoy for quite a long time a decided immunity against the invasion of an adjacent malignant tumor.

If a malign growth should be located in the vicinity of the vesical part of the ureter, and if the tumor should not be discovered and removed at a rather early date, this term of immunity might be transgressed, and the wall of the ureter might be broken into by the malignant growth; this occurrence calls for a more complex interference, not to mention the danger to the kidney that might result from obstruction at the ureteral mouth or from destruction of a part of the ureteral wall.

A certain pessimism as to bladder tumors that became rather

fashionable among surgeons, led among other things to the statement that, as a rule, in early stages bladder tumors offer none at all, or absolutely indefinite symptoms, and that, when fairly developed symptoms appear in the clinical picture, the tumors, especially the malignant ones, have so far developed and so far involved the parts that the diagnosis at this time does not offer more than the certainty of the death warrant for the patient.

This belief, in so many quarters accepted without criticism, certainly calls for correction. There is scarcely one carefully taken and carefully studied history of a case of bladder tumor that would not contain one or more points which were apt to instigate the observer in the early stages to appropriate investigation of the bladder.

It is still a fact, strange enough, that a good many surgeons either indulge in a kind of fatalism, or resort to all kinds of antiquated methods rather than employ cystoscopy, if there is any even flimsy excuse to repulse or delay it.

It is true enough that there are no clinical symptoms which even to the mind of the well-trained and careful observer would be characteristic for tumors of the bladder, but there are many symptoms which will call the attention of the observer to the fact that a cystoscopic examination should be made. Prominent among these is the appearance of blood in the urine.

Blood in the urine, even if only temporarily present, makes a cystoscopic examination imperative, in order to determine its origin. Nothing could occasionally be more fateful to a patient than neglecting to do that, because a hemorrhage again ceased very soon, and because the physician consoled himself with the guess—diagnosis, "hemorrhoids of the bladder". A tumor easily detected by cystoscopy at the time of the first hemorrhage might have been easily operable at this time, while in the course of time, undiscovered and inoperated, it might be inoperable when it finally is diagnosed, but too late.

And still, I see quite a few cases that for months and months are "treated," and where all kinds of microscopical examinations of the urine are made without definite results, while repeated hemorrhages simply cried for cystoscopy.

A persistent cystitis, especially if the urine is very offensive, forms another indication for cystoscopy.

In any case in which the subjective symptoms of dysuria are out of proportion with the ordinary clinical symptoms, the bladder should be inspected.

This is especially true if the patient regularly at the time of urination feels tingling, itching and tickling sensations at the glans

penis, and if such patients twist and rub their penis before, during and after urination.

If urinary calls decrease in their intensity with the increase of distension of the bladder, when the patient suppresses his desire for urinating for some time, and if after the bladder is emptied a sensation of dissatisfaction or even urospasms are perceived, then there is a high probability of the presence of a tumor near the internal urethral orifice, and a cystoscopic examination is a matter of necessity.

If a patient is always conscious of his bladder, if the bladder is permanently the seat of a sensation of heat and heaviness, if these sensations are intensified during repose in bed, a tumor of the bladder has to be thought of, and a cystoscopic examination has to be carried out without delay.

It hardly needs to be stated that in case pieces of tissue are found in the voided urine, a cystoscopy immediately has to follow this discovery.

After once the cystoscopic diagnosis of a bladder tumor has been made, the next problem is to qualify it as to its character, whether benign or malignant, and to make a typographical diagnosis, that is, to make certain of the location of the tumor and to outline its extent. In both these problems again cystoscopy is the souveraine method. At the same time cystoscopy will give information as to the co-existence of concretions, of cystitis, hemorrhage, plaques and so on.

Quite often the statement is made that it is impossible to determine by cystoscopic examination, whether a given tumor is of benign or malignant character. This statement is refuted by all the men with extensive cystoscopic experience, by men who had a chance to compare their cystoscopic diagnoses with their definite operative results, and with the information gained through pathologic examination of the removed specimens.

For practical purposes the question simmers down to this issue: Is a tumor with absolute certainty to be classified as benign, or not? because so far as the operative interference is concerned, every doubtful tumor has to be considered a malignant one.

In trying to decide upon the nature of a tumor, three features are of decisive value: the presence or absence of a pedicle, the formation of the pedicle in contradistinction to the body of the tumor, and the surface of the tumor.

A pedunculated tumor is in all probability a benign one; this probability becomes stronger if the pedicle is tapering toward its center-portion. This probability becomes a certainty if the tumor

body consists of leaves that are transparent, easily movable in the filling fluid like the leaves of a water plant, and if the edges of these leaves are lined with an uninterrupted light border.

Quite often the decision whether a tumor is pedunculated or not, cannot be made by mere inspection; there are doubtless benign tumors whose pedicle is so thin and pliable that the body of the tumor sinks down on it, doubles it up underneath, so that a superficial examination would give the impression that this tumor is attached to the bladder with a broad base. If an apparently sessile tumor shows an absolute smooth surface, or if it is composed of villi, the above mentioned possibility has to be considered. Then a straight operative cystoscope is introduced, and with a rigid sound or with a small forceps, the attempt is made to elevate the body of the tumor from the bladder-wall; then the pedicle, if present, becomes evident.

If the surface of the tumor has a granulated appearance, the suspicion of malignancy is justified. Breaking down of the tissue and ulcerations on the top of the tumor, indicate a malign tumor; tumors of this character, as a rule, are surrounded by ecchymoses in the adjacent bladder mucosa; other disturbances in the circulation are quite frequently marked by edema in the adjacent parts, which finds its expression in the fact that the mucosa is thrown up in thick, clumsy folds. Tumors that are attached to the bladder-wall with a broad base have always to be diagnosed as malignant ones; if the surrounding area of the mucosa appears to be protruding, rigid and discolored as expression of infiltration, the tumors have to be classified as extremely pernicious.

As secondary or accessory aids in diagnosis can be considered the following clinical symptoms: Begin tumors, as a rule, cause only transitory hemorrhage of rather small quantity; in malign tumors the hemorrhages repeat themselves more frequently, last longer, and are copious; finally they become permanent and lead rapidly to extreme anemia.

While in hemorrhages caused by benign tumors astringent flushings act quickly as hemostyptics, they are practically inefficient in hemorrhages caused by cancers.

Pains in the bladder occur in benign tumors either not at all, or only during the hemorrhage, or if villi of a polypus get caught in the internal urethral orifice; they subside immediately after release of the impacted parts.

In malign tumors the pains appear independent of the hemorrhage and are of a lasting character; pains that irradiate all over the pelvis

and into the thighs are significant of secondary changes and metastases.

Benign tumors, save for producing discomfort at the time of urination in instances mentioned above, do not as a rule interfere with the function of the bladder; malignant neoplasms very early cause considerable disturbance of the function of the bladder.

Cystitis, if coexistent with benign tumors, improves readily under treatment. Cystitis combined with malign tumors appears very early, produces offensive, highly toxic urine and does not respond to treatment.

It is almost characteristic for infiltrating cancers of the bladder, that the offensive urine shows a very high percentage of fibrin, that either appears in large gray pieces in the voided urine, or precipitates as jelly in the vessel. In the same way it is characteristic for malignant infiltration of the greater part of the bladder wall, if an attempt to distend the bladder by injecting a fluid through a syringe is met with rigid non-elastic resistance.

It is important in benign tumors to decide whether they can be reached through the operative cystoscope. If such a benign tumor should be located in the top of the bladder, it is hard and quite often impossible to remove it through an endovesical operation. If such a tumor should grow around the ureteral mouth it should be removed through a suprapubic incision, rather than that one should take chances of injuring the ureter by an endovesical operation, or make an incomplete removal, for fear of injuring the ureter.

How important it is to exactly locate a malignant tumor becomes very apparent if we consider that prognosis, choice of operation, in fact the whole operative plan, become dependent upon exact cognizance of the topography of the growth. I want to emphasize very strongly that modern bladder surgery should be conducted in such a way that the bladder is incised and opened as closely to the insertion of the tumor as is consistent with the demand that the excision should be made through healthy tissue. Exact location of the tumor therefore will determine how far the bladder is to be dissected out from its neighboring tissue in order to make the outside part of the bladder wall corresponding to the implantation of the growth accessible. If the base of the tumor should involve a ureteral opening, this fact has to be recognized before the operation, because it then becomes necessary to dissect out from its bed the vesical end of the ureter.

The location of the tumor is made out by judging the distance of its base from the land-marks inside of the viscus—that is, the

crescent-shape fold marking the internal urethral orifice; second, the ligament running between the two ureteral openings; then the junction of the trigonum to the fundus, and finally the air bubble floating in the vertex of the bladder.

This location and its diagnosis can be even more refined by observing through the cystoscope the impressions made by the palpating fingers, introduced, as the case may require, into the rectum or into the vagina, or placed on the abdominal wall.

FEMORAL HERNIA: A PLEA FOR AN EARLY RADICAL OPERATION.*

BY RALPH ELMERGREEN, M. D.

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In the discussion of any form of hernia it is always wise to review briefly the gross anatomy and general surgical and anatomical relations of the parts and structures we necessarily must refer to in the course of our essay.

No matter how long we may ponder over our treatises on anatomy, and quite regardless of the time we may spend in dissections on the cadaver, or operations on the living, to the surgeon there is always something new and interesting about the anatomy of the groin, and the technic involved in operations in this region.

It is this thought I kept in view in the preparation of this paper, and so I offer no apologies for reviewing anatomical structures, often learned and as often forgotten, by some of us, and for emphasizing surgical truisms daily parroted in the abstract, yet as often overlooked and neglected by us in our practical work.

ANATOMY: Poupart's ligament divides the groin into an inguinal region and a femoral region. I shall confine my attention in this paper wholly to the femoral groin—to Scarpa's triangle. I shall even limit myself to the upper portion of this famous triangle, by assisting you in drawing a triangle within Scarpa's triangle, sharing Poupart's ligament as a common base, but taking the pectineal muscle on the inside, and the ilio-psoas muscle on the outside as the other two sides of the triangle.

Disregarding for the present, the skin, the superficial fascia,

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*Read before the Milwaukee Medical Society, April 3, 1907.

the superficial vessels, nerves, glands, etc., you will notice that we have a space somewhat collapsed in the normal condition—oval, transverse in direction less than one-half inch long, lying between the fibrous septum of the femoral vein on the outside, and a reflection of Poupart's ligament, known as Gimbernat's ligament, on the inside. Above and anteriorly to this space we have Poupart's ligament, while posteriorly we have the pubic bone, pectineus, and pubic portion of the fascia lata.

This space is known as the femoral ring, and corresponds with the internal ring in inguinal hernia. The ring is covered with a thin, non-resisting, areolar tissue known as the septum crurale, which is reflected from the femoral sheath. Not infrequently a small lymph gland, known as Rosenmueller's gland, is lodged in this space.

The femoral ring is an inherent weak point in our anatomy. The edges of this ring, especially the external borders of Gimbernat's ligament, are sharp and offer great resistance. In many cases of strangulation the semi-circular edge of this little ligament is at fault, and for relief it should be cut upward and inward to avoid injury to the important vessels.

A little lower down, about one-half an inch, and slanting in an inward direction, we find another opening, also oval in shape, formed by the iliac and pubic portions of the fascia lata. This space is known as the saphenous opening, admitting the internal saphenous vein. This opening is also more or less collapsed in the normal state, and is covered by a thin areolar fascia known as the cribriform fascia. The saphenous opening permits the external escape of a femoral hernia, and corresponds to the external ring in inguinal hernia. In some cases of strangulation we find the point of constriction at this outer opening owing to the dense and rigid falciform process of the fascia lata that guards the outer border of this opening.

The space between the femoral ring and the saphenous opening is known as the "femoral canal"—corresponding with the inguinal canal in inguinal hernia. This canal is in a complete state of collapse, if not wholly non-existing in the normal person. It is about one-half an inch in length, and occupies, only when there is separation, the inner compartment of the sheath of the femoral vessels.

We thus notice, that passing from within outwards, we meet with the following coverings: (a) within the abdomen, peritoneum; subserous areolar tissue. (b) At ring: the septum crurale. (c) In femoral canal: femoral sheath. (d) At saphenous opening: cribriform fascia. (e) On thigh: superficial fascia and skin.

STATISTICS: When we review the anatomy of femoral hernia it becomes quite apparent that man has not yet adapted himself to the upright position, and that the only surprise is that femoral hernia is not even more common among our people than it really is. There is nothing to hold the abdominal contents back but easily yielding structures—skin, fascia and flimsy, sieve-like areolar tissue— nothing more.

Yet in the face of these glaring anatomical defects, and the periodical increase in abdominal pressure brought about by child-bearing, heavy labor, coughing, and heavy lifting, only about three per cent in the male of all hernias are femoral. The percentage in the female is about twice as large. According to Macready, even in the female, inguinal hernia is more frequent than femoral hernia. Ferguson and Blake both agree with Macready. Sifton, however, believes that in the female femoral hernia is about three times as frequent as inguinal hernia. He finds but little support here. In the statistics of the London Truss Ass'n, Macready gives the relative frequency of femoral hernia as compared with inguinal hernia as one to sixteen. Coley gives this proportion as one to seventeen. Of 15,028 operations for hernia that Pott collected from hospitals all over, he found nine hundred and thirty-three femoral, and 14,092 inguinal—about the same proportion as Coley.

When we look at these figures and then think of the patients we have known as martyrs to a long truss-wearing life, it is small wonder that with the advent of aseptic surgery, our leading surgeons here and abroad began to think of means and methods of restoring the normal resistance to the weakened and defective parts of the abdominal wall.

Hernia has for years not only been a medical topic, but also an economic topic. The ruptured man or woman is, as an industrial factor, seriously handicapped. The man with a hernia is disqualified for both army and navy service. Many transportation companies and not a few industrial concerns refuse to employ a man suffering from hernia. Add to this the annoyance and the discomforts of truss wearing and the ever present danger from strangulation, and you will readily see that any operation that will permanently do away with the truss, and restore the unfortunate man or woman to a perfect physical condition is indeed an economic and surgical Godsend.

Today the percentage of permanent cures for femoral hernia is nearly, if not quite, as high as is the percentage of permanent cures for inguinal hernia.

If we do away with the complicated methods of Gordon, Kammerer, Baldwin, von Bergman, and even Kocher, all only of signal benefit in skilled hands, and thoroughly familiarize ourselves with the simple and equally successfully Bassini method, or the purse-string method, or even the Ochsner method—if we do this nearly all our cures will be permanent, with a mortality kept down to nil.

To my mind it is as culpable for the surgeon to counsel on the side of palliative measures in a case of femoral hernia, and wait for strangulation before operation, as it would be for him to say; I will take the appendix out should you ever get another attack.

Operate all cases of fermoral hernia, as soon as the diagnosis is made, unless there are contraindications. If the patient refuses, the responsibility rests on his not your shoulders. It is better that you take the man away from his business and put him on his back for a few weeks, sending him back into the world, as a whole man, than that you subject him to the discomforts of a nasty truss, and the dangers of a momentary strangulation. It is safer to take the woman out of the kitchen and put her in her bed for a few weeks, and then send her home whole and wholesome, then to subject her to the annoyance of the hideous truss, or the momentary danger of constriction and bowel incarceration.

ETIOLOGY: Ochsner tells us that more than one-third of all patients suffering from hernia give a history of hereditary tendencies in this direction. This is particularly true of femoral hernia in woman. I have in mind a family in which the mother and both her mature daughters suffer with a small reducible femoral hernia—all wearing retaining pads, and all refusing an operation. We have all noticed a tendency toward the under-development of the deltoid, the biceps, or the rectus muscles in some families, just as we see in other families a poor development of the tissues surrounding the femoral canal, leaving the openings wide and patulous.

The wide pelvis unquestionably predisposes some women, and not a few men, to femoral hernia. The anatomist tells us that the space between Gimbernat's ligament and the femoral sheath of the vein is always proportionately large in wide pelves. This perhaps explains the greater frequency of femoral hernia in women, especially when we take this anatomical fact in connection with the comparatively greater exposure of women to the exciting causes that increase intra-abdominal pressure.

The deposit of large quantities of fat both in the abdomen and externally around the hernial aperture predisposes toward hernia.

When the fat is deposited around the viscera it adds to the abdominal pressure, and when it is deposited around the ring and canal it weakens the integrity of the normal tissues.

Violent cough, the lifting of heavy weights, and chronic inflammatory processes, all are factors that should be considered in connection with the exciting causes of femoral hernia.

DIAGNOSIS: The differential diagnosis of hernia is not always easy. Fatty tumors in the femoral region have been mistaken for hernial protrusions. The same is true of sarcoma, and even enlarged lymphatic glands have worried not a few practitioners. When the omentum becomes adherent to the ring or the canal as a result of acute inflammatory processes, the diagnosis is still more difficult at times. In rare cases the femoral sac can not force the cribriform fascia at the saphenous opening downward, and the tumor, following the course of least resistance will turn upwards and appear above Poupart's ligament, thus closely resembling a direct inguinal hernia. In other cases the femoral tumor may pierce Gimbernat's ligament and closely hug the pubic bone. Blake reports a case in which the femoral sac actually forced its way underneath the femoral sheath, throwing the femoral vessels forward and outward. In short, femoral hernia is one of the tributes man pays to the law of gravitation for the privilege of assuming an upright position. The femoral protrusion will always follow the line of least resistance which in the great majority of cases is along the femoral canal, emerging at the saphenous opening.

When a femoral hernia is not strangulated there is always an impulse on coughing. The tumor is usually small and freely movable and can be pushed to the outside of the spine of the pubis. The hernial tumor, however, can not be moved very freely when the contents of the sac have become adherent in any part of the femoral canal as the result of continued pressure from a truss, or some inflammatory processes following trauma or infection.

Varix of the femoral vein in fat people may be hard to differentiate from femoral hernia, in rare instances. The same may be said of cysts and hydrocele. However, patience and a trained tactile sense will generally enable the surgeon to arrive at a correct diagnosis.

CLINICAL TYPES: Clinically we may very properly classify femoral hernia into (a) reducible; (b) irreducible and (c) strangulated hernia.

Reducible femoral hernia is often overlooked. The symptoms complained of are fleeting and indefinite, and physicians very often neglect to make a proper examination of the groin.

Irreducible femoral hernia is generally a great discomfort to the patient. Adhesions frequently form as the result of infection, prolonged massage, or trauma, and the tumor becomes tender and painful. The differential diagnosis in these cases is sometimes beset with many difficulties. Early operation for a radical cure is the only treatment. The truss and all attempts at taxis can only do harm in these cases.

A femoral hernia becomes strangulated very easily owing to the dense and sharp internal edge of Gimbernat's ligament, and the prehensile clutch of the falciform process that guards the saphenous opening. Bassini took a plaster cast of the femoral canal and found that the narrowest point was opposite the sharp falciform process. Immediate operation is always imperative in strangulated femoral hernia as gangrene of the intestinal loop or strip of omentum will often set in within a few hours after constriction has taken place.

SYMPTOMS: The symptoms of strangulated hernia, besides the tumor peculiar to femoral hernia, are abdominal pain, tenderness, and early tympanites. In older people, however, these symptoms are often delayed, and not as severe as in younger people. This perhaps is due to the lessened blood pressure in elderly people. The development of gangrene in old people suffering with strangulated hernia, as a rule comes on later than in young people.

The colicky pain is generally the first symptom, tenderness, tympanites and complete bowel obstruction supervening within a few hours.

Vomiting, too, is an early symptom. The contents of the stomach are first thrown up, which is soon followed by gastric mucus and bile. Toward the end the characteristic stercoraceous vomit sets in.

The temperature, owing to shock, is often below normal. With the coming on of toxemia from systemic absorption, the temperature will rise proportionately, becoming again subnormal with the first symptoms of collapse.

The pulse rate is a fairly reliable index to the condition of the patient. It becomes irregular and thready toward the end. Accompanying this pulse you get the ashen, drawn facial expression known as the "Hypocratic face." The impaired mental condition is reflected by the patient's repeated statements of feeling well and his determination not to be removed to the hospital for immediate operation.

It is in these cases and at such critical moments that the strong will of the attending surgeon should and must prevail. And I wish

to go on record right here with an expression of comtempt and denunciation for the incompetent, and conscienceless practitioner, called in clandestinely by the family, or a relation of the family, at such a crisis, who, instead of confirming the diagnosis and urging immediate operation, robs the defenseless patient of his fighting chance by again attempting taxis and counseling delay.

GENERAL TREATMENT: Femoral hernia is always acquired and so rarely found in very young children. In older children a well fitted truss will sometimes assist the natural agencies in effecting a permanent cure. The chance of a cure is perhaps increased by a good nutritious diet and suitable physical exercise. In the vast majority of cases no improvement takes place through such palliative measures, and it is here where the surgeon should step in and urge the early radical operation unless there be special contraindications.

The mortality of the radical operation is practically nil, and the permanency of cure, if properly performed, is close to one hundred per cent.

Massage, physical culture, the injection method, and the open method with a view of replacing normal structures by scar tissue, I shall only mention here to condemn. They are all unsurgical, and unprofessional, and on a par with the olive oil treatment for gall stones and the medical treatment for appendicitis.

If a truss is fitted as a temporary palliative measure, care should be taken not to compress the femoral vein.

In strangulated femoral hernia taxis should be attempted with great caution. The thigh should always be flexed and turned inward. Taxis should not be attempted after six hours of strangulation, nor should any immoderate degree of force be applied, or any attempts at taxis be prolonged beyond a few minutes at a time. If ether is administered, preparation for the radical operation should always be made while the patient is put to sleep. If gentle taxis under full anesthesia fails, operate at once—making it a radical operation if the environments and the condition of the patient permit.

The rules laid down by text-books with reference to the axes of pressure in using taxis are of little value, and may often be disregarded with profit to the surgeon, and with a decided advantage to the patient. The anatomical relations of structures are by no means always clean cut in strangulated femoral hernia, as when inflammation has set in with the concomitant formulation of gases and exudation of septic fluids, all surgical landmarks are often destroyed.

In such cases I have found it expedient to steady the neck of

the tumor, as Levings suggests, and then make uniform pressure on the hernial mass in the hope of forcing the gases back into the abdominal intestines. This procedure will in not a few cases reduce the tumor in size, collapse it, as it were, and permit it to slip away from the fingers into the abdominal cavity.

RADICAL OPERATION: Until a comparatively few years ago, it was thought that the radical operation to effect a permanent cure in femoral hernia was not as satisfactory as this operation had proven in inguinal hernia. This view was held by many surgeons on account of the anatomical relations of the femoral vein—forming, as it does, the outer border of the canal, and, of course, no suture can be passed on that side.

These views, however, have been completely upset by the data collected by Pott, Coley and others.

Berger had no relapses in twenty-five consecutive cases, Coley had but one relapse in thirty-six cases, due to infection. Later Coley reported forty cases without a relapse. Bassini examined forty-one cases, two to nine years after operation and found no recurrences. De Garmo reported one hundred and ten operations for femoral hernia with only one failure. Von Bergmann, Lotheissen, Kocher, Gordon, Bacon and Kammerer, all report groups of cases that warrant the conclusion that the permanency of cure in femoral hernia is most satisfactory. I should add, however, that some of the above surgeons find fault with the ordinary Bassini method, the purse-string method, or modified operations of Jobse and Mayo, and have adopted the more complicated methods of Berger, or modifications of the same.

TECHNIC: The pubic region should be shaved and properly prepared. The patient placed in the normal recumbent position, the surgeon standing on the sideof the hernia. Make incision about two inches long, parallel with Poupart's ligament. Let the middle of the incision pass over the highest point of the tumor regardless of neck or canal. Cut through the skin and superficial fascia only. Apply artery forceps and retract wound. Pick up and divide every successive layer, cautiously, as the hernial sac in old atrophied cases sometimes lies right next to the skin.

The sac can be easily recognized by its smooth, hard structure. But when irritated by a truss, or engorged by strangulation, it may be very difficult to differentiate the structures, and in that event it is always wise to open the sac before beginning dissections in order to make sure of its identity. When the sac is opened there is usually an escape of hernial fluid. Dissect the sac from its canal by blunt dissections. Free it from the femoral ring, and pull it out freely.

Reduce bowel if viable and in good condition. Always ligate and remove protruding strips of omentum whether adherent or not. Do not cut femoral ring unless necessary in order to reduce bowel or omental stump. If the loop of intestine looks suspicious, lay the canal freely open and bring the loop to the surface, covering it with warm towels. Should normal circulation fail to return within a few minutes, or should you detect any necrotic patches in the intestinal wall, reset, andmake end-to-end anastomosis. If the condition of the patient does not warrant this delay make temporary anus and finish operation at a later day. Pull down and transfix sac in all cases, ligating it with strong thirty-day chromic cat-gut. Tie securely, and cut off distal part, leaving a good stump to drop back into the abdomen.

When the bowel is returned into the abdomen in good shape either with or without resection, as the indications warrant, the surgeon should give his attention to the proper repair of the ring and canal.

I should perhaps mention before going on that whenever there is any question about the viability of the strangulated loop of bowel, give the patient the benefit of this doubt by resection—as the smallest necrotic patches are always virulently septic and destructive of life. Hosselbach and his followers do not resect the bowel through the primary incision, but make an incision above Poupart's ligament, like the Kammerer incision along the outer border of the rectus muscle, and deliver and resect the bowel through this higher incision. The advantage of this procedure is the time gained—the surgeon being enabled to repair the femoral canal while awaiting return of life to the doubtful intestinal loop.

REPAIR OF CANAL: Ochsner following Berney, simply denudes the edge of the ring, claiming that if the parts are not distorted by sutures, the opening would fill up within a few days. He reasons along the well known surgical principles that all openings in normal tissue except those lined with mucous membrane will readily close up if left alone, and the anatomical relations are not distorted. Ochsner, though very successful in his hernial work, yet, of late, hesitates in forcing his views.

Bassini, working on the theory that Poupart's ligament and the fascia lata are relaxed in femoral hernia, brings these two structures together by seven sutures. Bassini rarely has a recurrence. Kocher, Fabricius and Gersung use complicated methods which necessitate the opening of the inguinal canal, and thereby invite an inguinal hernia. Salzer covers the ring with a pectineal flap, while Schwarz uses a

hetero-plastic flap for same purpose. A few surgeons have made use of the osteoplastic flap taken from the pubic bone; while some surgeons whose names I can not recall, have advocated the use of decalcified bone and other foreign material—all, however, with only indifferent success.

Von Bergmann for some years maintained that the simple closing of the femoral ring was not good surgery. Bacon and Kammerer, and also Heidenthaler and Lotheissen, have at times given expression to the same criticism.

Such criticism, however correct in theory, must yield to the wonderful success that Coley and his many followers have had with the simple suturing method.

My personal experience is confined to the Bassini and purse-string methods, and, while limited in material, yet it covers a period of ten years, giving me ample opportunity to keep in touch with my cases and profit by experience and improved technic. I use nothing but thirty-day chromicized cat-gut for suture material. I dispose of the sac by transfixion and high ligation, dropping the stump back within the abdomen. I denude the edges of the ring, and slightly free and denude the lower margin of Poupart's ligament. Then I carry a Hagedorn needle, threaded with a cat-gut suture, through the freed portion of Poupart's ligament to the pectineal fascia below, hugging the pubic bone. I run three or four parallel sutures to the first one, the last two sutures only going through the falciform process of the fascia lata, instead of through Poupart's ligament, so as not to distort the anatomical position of the distal portion of the ligament. These sutures when properly tightened bring the anterior and posterior walls of the femoral canal in close approximation, and join Poupart's ligament with the pectineal line. In a few cases I have used the purse-string suture in closing the ring. This suture practically takes in the same structures in one loop that the seven Bassini sutures take in, and therefore needs no further description here. I secured primary union in all my cases, and leaving out one case of strangulation with gangrenous bowel that died a few hours after operation, I am pleased to report that I have had no recurrences in any of my cases so far as I am able to ascertain.

My paper is already too long and I shall therefore not tire you with a detailed report of cases. However, before closing, I wish to emphasize a few points by way of summary.

(1.) Operate on all cases of hernia, unless there are special contraindications. Do not subject the poor patient to a truss-wearing

martyrdom in these days of aseptic surgery, when you can hold out to the unfortunate man or woman a mortality practically nil, and a permanency of cure almost perfect.

(2.) Open the sac before dissecting it out of the canal in all cases where you are unfamiliar with the structures you meet. Remember that the hernial sac has sometimes no other coverings than the skin, and that the interior has often very strange lodgers. Clogg, Connell and Ferguson all reported cases with uterine appendages in the sac. Heaton reports a case with the appendix in the sac. Lucy Waite reports a case where the bladder was accidently opened mistaking it for the sac. Shimonek had a similar experience with a diverticulum of the bladder closely adherent to the mesial side of the sac, and the author reported a case of colloid cyst within the sac. In short, be prepared for everything when you operate on a femoral hernia.

(4.) Always bear well in mind the normal courses of the superficial and deep epigastric arteries, and be prepared to meet anomalous conditions of these two arteries in operating for strangulated hernia. If you injure any vessels ligate them at once with cat-gut, and do not put your faith in twisting or compression.

(5.) Avoid constriction of the femoral vein when you tie the outer Bassini suture—the only suture lying close to the vein.

(6.) Use no other suture material than chromicized cat-gut or kangaroo tendon.

REPORT OF A CASE OF TRANSVERSE RUPTURE OF THE MEMBRANOUS URETHRA IN THE MALE.*

BY KARL W. DOEGE, M. D.

MARSHFIELD, WIS.

It may be well before reporting the case to make a few remarks on urethral injuries in general. The urethra is the urinary canal extending from the orifice of the bladder to the end of the penis. In its placid state it is from 6-6½ inches in length. It is anatomically divided into three parts, the prostatic, the membranous and the bulbous or pendulous portions. The last or pendulous part is probably more frequently the seat of injury than any other. Next in frequency we have the membranous urethra. This part is about ½-¾ inch in length. Situated as it is immediately under the symphysis and

*Read before the Northwestern Wisconsin Medical Association, at Stevens Point, May 7, 1907.

fixed in this position by the firm triangular ligament, it is in one respect well protected from violence by the bony parts, the descending ramus of the pubis, but in other respects, it is peculiarly susceptible to injury in case extraordinary violence is offered it, such as in fractures of the bony pelvic ring. Ruptures of the membranous urethra are caused by falling astride a fence rail, by receiving a kick with a foot, by being thrown on the pommel of a saddle, of late by injuries received on the saddle of the bicycle, and through fractures of the pelvis as may occur in buffer accidents on railroads. In such accidents the urethra is violently pressed against the edge of the ramus of the pubis and partially or completely torn and cut in two. In pelvic fractures the sharp edges of the bone may cut the urethra, and in cases of separation of the symphysis the triangular ligament and with it the urethra may be torn apart. Stab wounds of course also may occur, but these having generally clean cut edges as a rule heal kindly. A longitudinal slit in the urethra will heal without any appreciable narrowing of the same. Transverse wounds also will heal kindly but there is a decided inclination towards stricture formation, which later on must be counteracted by the use of the steel sound.

Injuries caused by dull agents or by pressure, of course, do not offer such easy chances of healing. Not only is the affected part of the urethra broadly contused and lacerated, but the surrounding tissues from which it receives its blood supply are equally injured, endangering its viability and often ending in the formation of gangrenous patches.

Clinically we must consider, first, the simple contusion of the urethra, and, second, its rupture, either complete or partial. The simple contusion may not cause very pronounced symptoms. If the mucous membrane is broken there may be some bleeding from the urethra. If the mucous membrane is intact there will be no hemorrage whatever. On urination there will be a scalding sensation as the urine passes, and if considerable swelling takes place some difficulty in voiding the urine is experienced. Usually, however, this is not so severe but what the use of the catheter is but rarely required. The perineal region will show signs of extravasation of blood, and on palpating the urethra from the tip of the penis backwards, the painful and sensitive portion can easily be detected. Rest in bed is usually all that is necessary in this variety of injuries. It is, however, well to remember that even these mild cases may be followed by scar formation in the contused surrounding tissue and eventually lead to a

stricture of the urethra. Repeated passage of the sound will of course counteract this.

If, however, the urethra is actually torn, either partial or complete, we have to deal with a much more serious condition. The new element that enters in this variety of cases is the much-to-be-feared urinary infiltration of the surrounding parts. If the urethra is torn, the urine as it passes the injured part will infiltrate the adjacent tissues. These structures, non-resisting as they usually are through the effect of the trauma, at once become inflamed and gangrenous, and lead to the formation of severe sepsis unless speedily relieved. The urinary infiltration rapidly involves the scrotum, the soft tissues and spaces at the perineum and around the rectum, and extends upward to the inguinal region.

Hemorrhage from the urethra is invariably present whether the urethra is partly or completely torn. It is, however, a mistake to judge from the extent of the hemorrhage as to the extent of the urethral injury. A small tear may bleed profusely and a complete tear may bleed but very little. If the urethra is completely ruptured, the blood clot may occlude the fringed edges of the tear and but very little external hemorrhage will take place. Always examine the meatus carefully, and, if necessary strip the urethra in order to detect the blood. Blood extravasation will soon involve the perineum, scrotum, penis and inguinal regions, and in cases of extensive contusion may produce a fluctuating hematoma.

Inability to urinate is a prominent symptom of complete rupture of the urethra, as the central portion of the torn canal will of course allow the urine to escape into the lacerated tissues and spaces, the distal end being usually compressed and occluded by blood clots, allowing no fluid to pass. In partial tears, urination will be possible but painful, and the signs of urinary infiltration, as manifested by a burning pain, will begin upon the act of urinating. If much urine enters the tissues, they will become more tense than before. The time when urinary infiltration occurs, depends evidently upon the first attempt at micturition and may be early, within a few minutes, or after many hours, if the bladder at the time of the accident was empty.

The diagnosis of injury to the urethra is evident by the appearance of blood at the meatus, independent of the act of urination. Blood appearing in the urethra independent of urination can only come from the urethra. The nature and extent of the injury can only be surmised. The character of the stream of urine issuing from the

meatus however forms a very important guide as to the probable extent of the lesion. If the stream is normal and of the proper color, even if blood has been present at the meatus, it is probable that only a contusion of the canal has taken place. If, however, the attempt to urinate is followed by burning pain in the perineal region and only a scant amount of bloody urine passes or none appears at all, it is more than likely that a partial or complete rupture of the urethra has taken place. Rupture of the bladder has to be differentiated.

The prognosis is always grave, giving a mortality of from 15 to 40 per cent., unless early and proper therapeutic measures are instigated. If urinary infiltration has already taken place, immediate incision into the perineum is necessary to afford an exit for the urine and inflammatory products. The other treatment can be gleaned from the history of the case which I will now report.

Harry S., age 18 years, was riding on a car loaded with logs. The cars were derailed and he was wedged in between a log and a box car and thrown sideways from the car and off the track. The pressure took place at his hips; just how it took him, he is not able to state. He did not think that he was injured seriously and attempted to get up, but immediately fell down again. Being assisted by two men, he was able after a little while to go to another car and was taken to a physician. The injury took place at 7:30 A. M., April 13th, 1907. Patient had emptied his bladder but a short time previous to the accident. He arrived at the hospital at 2:00 P. M., of the same day. He looked very pale but did not suffer greatly. Pulse 130. No nausea or vomiting, no pain in abdomen. No desire to urinate. No paralysis of lower limbs, although he was unable to move his left thigh freely. There was a large hematoma in the hypogastric and left inguinal region, which fluctuated on touching as well as upon slight changes in the position of the body. The scrotum and penis were discolored from blood extravasation, and the perineum bulged. There was pain on pressure over the perineum and above the pubis. No abdominal rigidity. Rectal examination revealed a thickening anterior to the rectum. There was no excessive mobility of the pelvic bones and no fracture of the pelvic ring could be made out. Pressure over the symphysis was too painful to be tolerated. As stated before, the patient who evidently was in collapse, had no desire to urinate. The last urination had taken place at 6:00 A. M. A light breakfast had been taken at 6:30 A. M. and no food or drink since that time. At 4:00 P. M., of the same day, no desire to urinate was manifested. After thoroughly cleaning the meatus, a sterilized soft rubber catheter was introduced. It entered the full length, without a sign of obstruction, but no urine flowed. Upon withdrawal of the catheter, blood clots were seen to fill the eye of the instrument. Now a sterilized silver catheter was introduced. No urine flowed. While still in position, the finger

was introduced into the rectum to trace the direction of the solid catheter. It was found to lead considerably to the right of the median line, and by rotating the instrument, a free space or cavity could be made out. When the catheter was removed, blood clots filled the opening. There was no doubt after this, that we had to deal with a ruptured urethra. It was not likely that the bladder also was torn as there were no abdominal symptoms. The disturbing element in the case, however, was his general collapse, which seemed to be increasing, and his failure in desiring to urinate. A ruptured bladder would allow the urine to flow into the peritoneal cavity and no distension of the bladder or desire to urinate might occur. Furthermore, cases of intraperitoneally ruptured bladder have been reported with no, or but slight, abdominal symptoms during the first hours or even days. Distension of the bladder was not evident. It was considered probable that not much urine had been secreted since the injury, first because not much fluid had been taken that day, and second, because as a result of the trauma and shock, the organs of the body had to some extent suspended operations. It was decided to stimulate the patient before operative measures were attempted, by the use of strychnia and rectal saline injections. In this we were not successful. At 7:00 P. M. his pulse had gone up to 140 and the patient looked decidedly bad. The fluctuating hematoma over the abdomen had evidently increased in size. This either was due to escaping urine or to active hemorrhage. I decided to operate at once. Ether narcosis. Incision above pubis. Large clots of blood were evacuated. Hemorrhage evidently extraperitoneal. The tissues were greatly lacerated. Left external iliac vein and artery visible. By palpation, a fracture through the symphsis pubis was recognized. Separation of the symphysis amounted to about ¾ inch. Deep venous hemorrhage was still going on. The odor of urine was not detected. Wound packed firmly with plain and iodoform gauze. Then an incision was made into the perineal body. Patient's pulse now was 160. No attempt was made to find the torn urethra on account of the precarious condition of the patient. There was a great deal of laceration of tissue in the perineal region. A drainage tube was inserted towards the bladder and gauze was packed solidly around it to prevent further hemorrhage. As an exact knowledge of the condition of affairs had not as yet been ascertained, and since I still had some doubts as to the presence or absence of intraperitoneal rupture of the bladder, I decided to satisfy myself on this point, by rapidly making a small exploratory, suprapubic opening into the peritoneum. This I did, and finding the peritoneal cavity empty, closed the peritoneum by a purse-string suture and placed one silk-worm gut suture through the slit in the fascia. Patient now was put to bed and saline solution was administered subcutaneously. He reacted well and within two hours his pulse dropped to 120. During the following morning, urine began to trickle through the dressing and soon flowed through the tube. The act of urination took place at 9:00 A. M. and was accompanied by a burning pain. The deep dressings

were not disturbed for 5 days. Not much suppuration followed and on the sixth day, his general condition being good, an attempt was made to find the torn ends of the urethra. The perineal incision was enlarged and a silver catheter passed through the meatus. This readily appeared in the wound. Then a search was made for the central end of the urethra. The task at first appeared hopeless, but the membranous urethra was soon identified as a loose, partly gangrenous strand of thin membrane. A soft catheter passed into the lumen entered the bladder. The upper wall of the canal appeared quite healthy and it was sewed by three stitches to the place where the silver catheter emerged from the distal end of the urethra. The lower wall was gangrenous. A soft rubber catheter was now inserted through the meatus into the bladder and attached to the penis to be left in situ. The perineal wound was packed. It required great force to approximate the symphysis and wiring the fragment would not have held it in place. So a broad strip of adhesive plaster was wound around the pelvis and fastened so as to bring the broken surfaces of the pubic bone in apposition. The catheter was left in situ until the 14th day. At that time the perineal wound was nearly closed. During the first day after removal of the catheter the larger amount of urine passed through the perineal opening. Within three days, however, the entire urine passed per vias naturalis and a steel sound passed into the urethra entered the bladder with no difficulty whatever. The size of the stream now is smaller than normal, but satisfactory. The treatment with steel sounds will have to be continued.

CORRESPONDENCE.

Editor WISCONSIN MEDICAL JOURNAL:

Progress demands that we take up the use of the alkaloids for good reasons:

1. We cannot get along without morphine, atropine, strychnine, brucine, eserine, hyoscine and digitaline.

2. Standardization is but a make-shift because it relates only to the quantity of the principal alkaloid of the drug plant preparation under test.

3. There may be a preponderance of an antagonistic alkaloid in the preparation thus tested, outside the knowledge of the dispenser or user.

4. Educated pharmacists deprecate our cupidity in the use of such medicine.

5. Most alkaloids are isolated in German laboratories—surely an incentive to their worth and general utility.

JAMES BURKE, M. D.
Manitowoc, Wis.

Mar. 29, 1907.

Dr. G. K. Noyes was painfully injured in an automobile accident on June 12th.

Dr. J. T. Scollard has resigned from the chair of "Diseases of the Chest" in the Milwaukee Medical College.

Dr. Otto H. Foerster of Milwaukee, Assistant Editor of the Journal, was married on June 18 to Louise Leidersdorf of Milwaukee.

Dr. M. P. Ravenel has been appointed professor of bacteriology at the University of Wisconsin. This is a splendid addition to the men now comprising the faculty of the premedical course.

State Board of Medical Examiners. The following reappointments were made by Governor Davidson: Drs. W. T. Sarles of Sparta, A. B. Bailey of Fennimore, A. P. Andrus of Ashland, and L. F. Bennett of Beloit.

The July Journal will contain an interesting illustrated writeup of Superior, the State Society's next meeting place, as well as a preliminary program and report of the work that is being done in preparation of the August meeting.

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EDITORIAL COMMENT.

INCORPORATION OF MEDICAL DEPARTMENT AT MADISON SUCCEEDS.

The great importance of this subject lead us previously to discuss at some length in these columns that section of the University bill which related to the incorporation of a medical college at the state institution and the establishment there of the first two years of a medical course.

Four-fifths of the first two years of such a course had already been developed in connection with the pre-medical course which has enjoyed a steady and successful growth for over thirty years. In order to obtain time credit for this work, however, it became necessary to incorporate a medical school since a candidate for license to practice

medicine is now required in many states to have been registered as a medical student for four years in incorporated medical school or schools.

In addition to the departments already successfully organized at the State University, it will be necessary only to establish departments of pharmacology and pathology in order to give the entire curriculum of the first two years as it now exists in the leading medical schools. For the strengthening of the existing departments and the establishment and maintainance of the new departments the original bill called for an appropriation of fifty thousand dollars a year. The president of the University stated before the committee on education and the committee on claims that about half of this is needed for the organization of the first two years of the medical course while the other half was desired for the promotion of the scientific study of state hygiene and of comparative plant and animal pathology from obvious economic standpoints. The bill was favorably reported in the senate by the committee on education, consisting of Senators Stout, Martin, Morris, Browne and Hazelwood.. It was referred to the joint committee on claims consisting of Senators Burns, Hudnall and Hazelwood and Asemblymen Ainsworth, Nye, Curtiss, McGregor and Elver. The bill remained in this committee until the bill for the establishment of a mining school at Platteville, in which Senator Burns and Assemblyman McGregor are apparently especially interested, passed the Senate and was advanced in the Assembly. The University bill was then reported to the senate with amendments eliminating the sections relating to the incorporation of a medical school and the provision of funds for a woman's building. We understand that Assemblyman Nye was in favor of the entire original bill but that Assemblyman Elver who represents the university district was in favor of the amendment. The law partner of Assemblyman Elver, F. M. Miner, was a registered lobbyist employed to oppose the University Bill and especially the section relating to the incorporation of a state medical college. Mr. Robert Luscomb, an unregistered lobbyist, manifested similar activity.

When the emasculated University bill was reported into the senate it was intimated by some of the opponents of the medical college, that if the incorporation clause were left out there would be no difficulty in restoring to the bill those sections relating to the establishment of a woman's building. Senator Browne, however, introduced an amendment to restore to the university bill the sections eliminated by the amendment of the committee on claims. Speeches in favor of Senator Browne's amendment were made by Senators Browne, Martin and

Barker; Senators Stout and Whitehead urged especially the need of ample provision for a woman's building and woman's dormitory. Speeches in favor of the amendment of the committee on claims and against that of Senator Browne were made by Senators Burns and Hudnall. Senator Browne then offered a substitute amendment restoring the University bill to its original form with exception of the special appropriation for the first two years of the medical course. This amendment was carried June 12th by the following vote: ayes, Senators Barker, Brazeau, Browne, Lockney, Martin, Morris, Owen, Pearson, Rummel, Sanborn, Stout, Whitehead and Wilcox. (Total thirteen.)

Noes: Senators Fairchild, Froemming, Hazelwood, Hudnall, March, Roehr, Smith, Wright, Bishop and Husting. (Total 10.) The two last are understood to have been in favor of the incorporation of a medical department but opposed to the large sums voted for the woman's building. Senators Burns and Page against, were paired with Senators Noble and Fridd for the bill.

In the Assembly, the bill as it came from the senate, was favorably reported by the committee on education, consisting of Assemblymen McGregor, Miller, Jackson, Shauer, Ainsworth, F. Peterson and G. W. Kindlin. A speech against the bill and in favor of the Wisconsin College of Physicians and Surgeons was made by Mr. Esterbrook. It was however answered by Assemblymen Cleary and Norcross and carried by the following vote.

Ayes—Ainsworth, Alldridge, Anderson, Baker, A. S., Bell, Berg, Berner, Brockhausen, Burke, Cahoon, Carpenter, Clausen, Cleary, Detling, Domachowski, Durley, Elver, Goldsworthy, Grassie, Hager, Harrass, Harring, Ingram, Jackson, Jones, Kander, Kay, Keup, Kimball, Kindlin, Kubasta, Kuckuk, Ledvina, Le Roy, Mains, McGee, McKenzie, Miller, Thos H. Morris, Mueller, Frank F., Nelson, Norcross, Nye, O'Neil, Perry, Pickart, Potter, Reynolds, Roycraft, Scott, Geo. F., Scott, John, Smith, Simon, Sprague, Stewart, Stout, Ties, Turner, Weber, Wehrwein, Wellensgard, M. Speaker. Total 60.

Noes—Curtiss, Disch, Estabrook, Heilbron, Hughes, Luy, Neitzel, Palmer, Roethe, Schauer, Schmidt Nicholas, Soper, Sorenson, Wellensgard. Total—14.

An amendment introduced by Mr. Esterbrook to eliminate the section authorizing the incorporation of a medical college was previously lost by about the same vote.

The plans for the establishment of the first two years of the medical course at the state university had the hearty support of most

of the medical profession, including the officers of the state medical society and the Board of Medical Examiners. The opposition came from a few employees at the state house, members of the legislature who are consistently opposed to the expansion of the university; from those especially interested in the Platteville Mining School and from certain of those interested in Milwaukee schools. There was considerable distortion and misrepresentation of the aim of the university in taking the new step, but those in favor of the advance of medical education in Wisconsin and friends of the university were successful in counteracting this influence.

It is not the intention of the university authorities to attempt more than the first two years of the medical course at Madison, but every effort will be made to put this portion of the course at least upon the level of any in the country. The recent acquisition of Dr. Ravenel as Bacteriologist is a decided step in this direction. He is a foremost authority on the relation of human and bovine tuberculosis and a man of international reputation as a bacteriologist. It is justifiable to assume that the appointments to be made in pharmacology and pathology will bring to the university, as heads of these departments, men equally well fitted to fill the positions of educators and leaders in scientific research in their special lines.

RESPONSIBILITIES OF COLLEGE FACULTIES.

At this time of the year when the enrollment of new students fills the hiatus made by the graduation of erstwhile seniors, and there is a shifting all along the line, it is well to call attention to a phase of the responsibilities attaching to college faculties—one often lost sight of—namely, that of the relation between the faculty and the students. This was well brought out at a recent medical college graduation banquet, by Dr. E. A. Geilfuss of Milwaukee.

He said in substance that the responsibility of the faculty toward the commonwealth is well understood. This demands that only those students be graduated and honored with diplomas who are well qualified and thereby become entitled to practice their professions in the midst of a public that considers the degree granted as prima facie evidence of ability. The responsibility toward the college is also usually well weighed. This requires from the faculty that it permit only those to graduate who will reflect credit upon their alma mater which has sent them forth into the world.

A further responsibility may be found in the duty the faculty

owes its alumni. Having this in mind, no faculty will confer its degrees upon any who by their lack of ability or worthiness will cheapen the value of its diploma, thereby taking from those who have devoted long and arduous years for its attainment, that which is their only credential for ability, until such time as they are enabled to prove their individual worth.

But the duty of the faculty toward the student body should, in addition to the opportunity given them to become well grounded and trained in the principles which lead to ability, require further, that the faculty look well into facts which would lead it to determine whether or not there is likelihood of the individual student's becoming a success in his chosen career.

Among those who fail to stand the test imposed upon them by college boards or state examining boards, there are doubtless some who, misdirected in the beginning, and constantly coached and encouraged in the face of conditions that should have proved the fruitlessness of their efforts, ought to have been lead out of a hopeless struggle and guided into paths of less resistance.

It is unfair for colleges to accept fees from these students and permit them to devote the three or four years required to complete their courses, when from constant contact and observation on the part of the teachers it might easily be determined that there was no natural aptitude or fitness present and in many cases no possible chance of future success in the profession chosen.

It would seem that under such conditions it ought, in all fairness to the student, become the duty of the faculty to discourage further effort and devotion of time and energy in the pursuit of a degree in a profession for which the student seems to be entirely unfitted.

There are, of course, exceptions; but as a general rule it would redound to their credit if faculties in all professional schools could be prevailed upon to consider this one of their most important responsibilities. It would make for better schools, and better men.

COUNTY SOCIETIES.

Any organization which expects to be permanent must justify its existence, in the speech of to-day—it must make good. The County Medical Societies are no exception to this rule, and the vital question is this:—Are they "making good"? On its answer depends their future and that of the organized medical profession.

To one who reads regularly the reports of the County Societies throughout the State the answer to this question is no uncertain one.

Nothing could be more evident than the increasing usefulness of the County Societies. Practical usefulness to the average member may not sound like a high ideal but it must be kept in mind constantly by those who are called upon to guide the destinies of the various organizations, for by this criterion the societies will be judged by a majority of their members.

The practical value of these societies to the general profession is well shown by the safe passage through the legislature of some much needed medical laws which had the support of all sections of the state profession.

To the individual practitioner the greater practical value of the programs presented, the attempts to deal with perplexing fee questions and with the evils of lodge and contract practice, and above all the increased spirit of harmony and good-fellowship in the profession, are benefits of enormous value. The words in the report from Sheboygan County: "Mutual distrust and envy are being rapidly eliminated and confidence and co-operation taking their places," express well what is occurring in every quarter of the state.

These good things are not to be obtained or maintained without effort, but at last the benefits are beginning to be manifest and to be able to see results makes the work much easier.

The Societies *are* "making good"!

REGISTRATION OF NURSES.

We agree with Gilman Thompson of New York that there is danger in overtraining nurses by increasing their years of preparation and study. But a still greater menace has been in existence ever since the modern correspondence school idea has been carried into the domain of medical nursing. Even Collier's Magazine, after it began to see the light, contained such an advertisement, and in response to a protest of our own, answered that it had knowledge of cases in which correspondence-enlightened nurses did work that was highly satisfactory. Such advertisements no longer appear in this magazine.

A bill recently passed in Illinois puts a natural end to the five flourishing correspondence schools for nurses now existing in Chicago. The bill provides for the registration of nurses. A Board of Examiners will be appointed, and certain standards will be set to which all aspirants must conform.

The danger in this new registration scheme probably lies in the improper conception many physicians hold of the character and amount of general medical information of which a nurse should be possessed.

The sort of questions asked by one examining board must have presuppossed the actual study of medicine, because by no means short of this could the applicants have passed the test satisfactorily.

Registration is a wise measure. It will cut out the fake institutions. But when the test of diploma-holding nurses is made, good judgment should be exercised in framing questions so that the nurse's general information, expertness and fitness are discovered, not her knowledge of the science of medicine and surgery.

TWO YEARS' CAMPAIGN VS. TUBERCULOSIS.

Two years of active work of the National Association for the Study and Prevention of Tuberculosis were outlined by Dr. Livingston Farrand, the executive secretary, at the recent Washington meeting of the Association. The Association has from the start emphasized the need of organization of state and local societies, which should have for their main object the education of their respective communities. There are now in active being fifteen state organizations and seventy four local societies which are active in the education campaign.

While much anti-tuberculosis work and work of an effective kind has already been successfully begun in Wisconsin, it has been limited to one particular phase of the movement—a phase based on the corollary "Tuberculosis is a curable disease." Sanatoria are being started, and on the part of the public much encouragement is being received in the establishment and endowment of these institutions. In Milwaukee a bureau for the dissemination of literature concerning the prevention and preventability of the disease and general knowledge on the subject, is maintained in the rooms of the local medical society. What is most needed is a strong state organization which shall provide a traveling exhibit, keep one or two lecturers in the field, encourage the maintenance of dispensaries, visiting nurse associations, etc., and aid legislation seeking to provide better habitations for tenement dwellers, and better conditions for factory employees. Such a state organization was proposed at the meeting of the State Society last June, and a committee for the purpose of forming such a body was appointed. That nothing further has been done in the matter is much to be regretted, and we hope that no time will be lost in making up for the delay. Wisconsin is too progressive a state to fall behind in a movement having such an important consequence for its future.

MEDICAL INSPECTION OR SUPERVISION OF SCHOOLS.

The question of the child in our public schools is deservedly attracting the attention of school boards and public spirited medical men throughout the world. Since the establishment of medical school inspection in Boston in 1894 the movement has been taken up in some form in many of the large cities in this country.

Four able articles on the school and its pupils appeared in the Boston Medical and Surgical Journal for May 23, 1907. In one ("Medical Supervision versus Medical Inspection") a plea is made to bring the home and the school in closer affiliation, inspection to be a part and parcel of the latter.

It is impossible to exclude a semblance of paternalism in proper medical inspection or supervision, and, as there is a prevailing distaste in our country for anything which smacks of interference between parent and offspring, we might here meet with serious objection. This interference must be a form of paternalism, however, in which the spirit of advice and guidance is always kept in the foreground, and not that of execution. Inspectors should be intelligent, discriminating, and above all tactful. Under no circumstances should the method of inspection conflict with the authority of the parent or the rights of the family doctor. When a deficiency is found to be due to physical defect, the natural guardians of the child should be acquainted with the facts; no *orders* should be issued to them. Of course, in infectious diseases or conditions which make the child dangerous to its neighbors, strictness in enforcing instructions is essential.

When it is made plain that medical inspection or supervision is not for the purpose of criticism or condemnation but for the advancement of the child in a rational and natural manner in its acquisition of knowledge, then the home and school will be brought closer together in the training of the child and the third factor added—that of special knowledge, knowledge of a sort in which neither home nor school are greatly versed i. e. the adjustment of mind to matter—psychology to physiology, anatomy and hygiene.

We do not believe that the teacher should be burdened with the necessity of acquiring a medical knowledge requisite to decide such questions. She now has all that she can do and do well. Nor do we believe that the power of exclusion should rest with her, as the responsibility for this is adding too greatly to her already onerous duties. Nurses as helpmeets in medical inspection are very desirable because a great many minor ailments can be treated by them at the school under the direction of physicians, where such help is requested by the

family, and thus the number of absences can be kept down. A nurse, be she ever so efficient as nurse, should not be trusted to make a diagnosis, nor is her judgment always to be relied upon in the estimation of mental disability due to physical defect. She can make cultures at the school in suspicious cases, thus assisting the family physician to an early diagnosis as well as protecting the school at a time when protection may be desirable.

The teacher's report as to the progress of the child in its studies would furnish an admirable adjunct to the medical report, and an estimate of the child's power to adjust itself to the fixed curriculum of the schoolroom should be based on both.

The chief medical officer should be invited to take part in all the deliberations of the schoolboard when the physical and mental welfare of the pupils is under consideration. He should also be a member of the City Health Department. In thus making his office the connecting link between the department of the municipality dealing solely with public health questions, and with the educational board, the public at large would receive greater benefit from both officers in the care with which the physical and mental welfare of its coming citizens is guarded.

A MARVEL OF POTENCY.

A wonderful new remedy is offered us, "a scientific and ethical preparation for pneumonia", that "works equally as well on typhoid fever, measles, diphtheria, scarlet fever, cerebrospinal meningitis and all infective diseases." These remarkable results are obtained by "an incorporation of new chemicals (hitherto unknown to the medical profession) with the ordinary chemicals of the Pharmacopoea." Formula and samples upon request.

Curious to make the acquaintance of the hitherto unknown chemicals—we wrote to the manufacturers, and the formula and liberal samples (having a retail value of eight dollars) of a liquid which in taste and appearance resemble a strongly acidulated water, were sent us. Each dose of 20 drops is said to contain: Alcoholici (monatomic), gr. 1/1000, "one of the constituents of all nerve tissue;" Quiniae Sulphatis, gr. 1/384, which "aids in overcoming ameboid movement;" Tr. Ferri Chloridi gtt. 1/26, which "acts as magnetic iron, aiding the play of the electrical travel;" Dilute Sulphuric Acid—drops 2½, and Dilute Nitric Acid, drop 1/77, which "acts in removing hydrogen atoms and substituting atoms of the radical NO_2;—that is, as hydrogen tranquilizes the speed of burning or oxidation, its action is sub-

stituted by the atom nitrogen which is energy itself, nitrogen being the base of all explosives;" Acid-Butanol-idioic, gr. 1/3.

The directions for the use of this preparation are interesting: 15 to 20 drops are to be given in water every 15 to 30 minutes until perspiration starts, when the dose is reduced. "The average time to elapse before perspiration is about 12 hours. The maximum dose known, so far, is 20 drops every 15 minutes for 56 hours before perspiration sets in."

We would have doubted that any individual, whether in his normal health or reduced by acute illness, could endure the administration of any medicine every 15 minutes for a period of 56 hours without suffering extreme exhaustion, but since learning that "no case of infected fever, however severe, is beyond the reach of" this new compound, we are silenced.

We marvel too at the generosity shown by the manufacturers of this product which is made partly of chemicals "hitherto unknown to the medical profession"—in divulging their secret. Such candidly clear (?) formulae somehow or other remind us (though this is a confession of ignorance) of a little gem of Oliver Herford's:

SOME GEESE.

Every child who has the use
Of his senses, knows a goose.
See them underneath the tree
Gather around the goose girl's knee,
While she reads them by the hour
From the books of Schopenhauer.
How patiently the geese attend!
But do they really comprehend
What Schopenhauer's driving at?
Oh, not at all; but what of that?
Neither do I; neither does she;
And, for that matter, nor does he.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta
8th Dist., T. J. Redelings, - - Marinette

FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - - Beloit
4th Dist., W. Cunningham, - Platteville

FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

FOR THREE YEARS.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., J. S. Walbridge, - - Berlin

FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

REPORT OF PROGRESS.

During the past month seven more county societies have sent in their annual reports—making 46 in all—with a net loss, as compared with the total membership of these counties in 1906, of 100. Eleven counties show a gain, 6 are the same as last year, while 27 show a loss. The most notable losses are Milwaukee 37, Dodge and Fond du Lac, 10 each; Waukesha 7; Oconto, Washburn-Sawyer-Burnett and Winnebago 6 each; and Chippewa, Dunn and Marathon 4 each. Fortunately many of these reports are not final, and we may confidently expect these figures to be greatly reduced before the Annual Meeting. But even so, it is clearly evident that it will need the very best kind of work—by Councilors, County Secretaries and all—if we are to hold our own.

A list of delinquents in each councilor district will be sent to the

Councilors, with a request that a personal letter from the Councilor shall be sent to each delinquent, earnestly urging the prompt payment of his dues to the County Secretary. This means more work for the Councilors, but it is work which is well worth the effort. It will not only secure many renewals, but, what is of even greater importance, it will greatly encourage the county secretaries in their arduous and unselfish labors. It will be a genuine inspiration to learn that they are not working entirely alone, but that the councilors are back of them and are willing to manifest an active interest in their work.

THE ANNUAL MEETING.

Plans for the Annual Meeting are progressing satisfactorily and an excellent program, as well as a good time generally, can be put down as certainties. If we are to carry out the plan of meeting at the same time as the Minnesota State Society, it may be necessary to change the date,—since Dr. McDavitt, the secretary of the Minnesota State, informs me that the hotels in Duluth are all engaged for August 21-23, and that they will be obliged to hold their meeting either the week before, or the week after this date. If the date is changed, full notice of the change will be given in the July Journal.

PROTECTION AGAINST MALPRACTICE SUITS.

A matter which should receive serious attention at the Annual Meeting is the adoption of some plan for protecting ourselves against malpractice suits. Several state societies have adopted this feature and report it an unqualified success. It naturally has a place as a part of the general plan of professional organization, and offers something of recognized value—*a quid pro quo*—to those physicians who do not appreciate the real value of medical societies as such. The Illinois State Society has reduced the state dues to $1.50 and adds $1.00 for each member to cover the insurance feature. The dues of the county societies, or many of them, are only 50c, making the total dues for the state, county and insurance, only $3.00 in all. It would probably be inadvisable to reduce the dues of our state society at present, but even then, if only one dollar is added for insurance, the total amount of state dues would be but $3.00 which most physicians would be very willing to pay, considering the benefit received.

It may be well to remind those who are expecting to read papers at Superior that time is fleeting, and that their productions should be

sent at once to Dr. Ground, the Chairman of the Program Committee, together with the names of at least two members of the Society to open the discussion. The preliminary program should be sent out by the 1st of July, or thereabout, and there is no time to lose.

Finally, let us remember that we are, up to date, 100 shy in the way of renewals. Let every member be a committee of one to see that this deficiency is made up before the report in the July Journal.

C. S. S.

DANE COUNTY MEDICAL SOCIETY.

Dane County Medical Society held its regular monthly meeting at Madison, June 11, Dr. J. P. Donovon acting as president. A fairly good audience was present.

Dr. George Keenan read a paper on *Surgery of the Stomach.* He showed some interesting pathological specimens from a fatal case. He also presented three patients who had been successfully relieved of the distressing consequences of stomach ulcer with its subsequent obstruction, dilatation, toxemia, emaciation, pain and other pathological conditions.

Dr. J. A. Jackson opened the discussion and was followed by Drs. Dean, Fales, Nye, Noer, Montgomery and others.

Dr. F. T. Nye, district councilor, was present and gave us a good little "bracer" on the advantages and the practical utility of medical organization. He complimented us on our unusually large list of members—90—our spirit of good fellowship, the brief but scientifically excellent programs that had been carried out. He said: "I am well paid for coming up here tonight to hear the excellent and thoroughly instructive practical paper that has been read on stomach surgery, and the actual showing up of cases successful and unsuccessful. It is this sort of work that makes the county society worthy of support. It is postgraduate instruction and keeps us abreast of the times. I am agreeably surprised at the practical things you are accomplishing in the matters reported on by Dr. Fales, the almost unanimous signatures (only three not signing in City of Madison), to the minimum fee table put out by the Society. The hospital proposition brought up is also interesting and I shall be very much concerned to know how you will come out."

Dr. L. H. Fales reported his success as special envoy to secure the signatures of the 12 or 13 members in Madison who had so far not signed fee table. All signed after personal interviews except three who are still considering the matter. Dr. Fales' report was voted adopted, the committee discharged and the fee table question closed.

A special meeting was voted for June 14, 8 P. M., to consider certain rules adopted by the management of the Madison City Hospital.

J. NOER, M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

The May meeting of the Fond du Lac County Medical Society was held May 15th, 1907. The society sat down to supper at 7:30 P. M. and after doing justice to the inner man proceeded to the regular meeting. Vice-presi-

dent Schieb presided in the absence of President Burns. The secretary being absent, Dr. G. P. Boyd was appointed secretary pro-tem.

The application of Dr. Edward P. Crosby of Louisa, Dodge County, having been favorably acted upon by the censors, was presented to the Society and Dr. Crosby was unanimously voted a member of the Society.

The following program prepared for the evening was then presented: *Chronic Bright's Disease;* Etiology and Pathology, Dr. J. J. Schoofe; Diagnosis, Dr. P. J. Calvey; Treatment, Dr. G. T. McDougall.

Dr. Mears opened the discussion and spoke of uric acid as a factor in the cause of Bright's disease, Dr. Wiley continued the discussion on the same line of thought, Dr. Connell thought faulty elimination the great cause, Dr. Scheib talked about the eye symptoms in chronic Bright's disease.

F. A. READ, M. D. *Secretary.*

KENOSHA COUNTY MEDICAL SOCIETY.

At the regular meeting of the Kenosha County Medical Society May 3, 1907, the following resolution was passed unanimously with nearly all members present:

Resolved: that it is the judgment of this society that a fee of $3.00 is not a just and adequate compensation for thorough, conscientious work in examinations for life insurance, but that the fee for such examination should be $5.00.

Resolved: that with this feeling prevalent in the Medical profession we do not believe it is for the best interest of those companies that have reduced the fee to $3.00 to refuse to restore it to $5.00, they risking by refusal the loss of the hearty and cordial co-operation and interest of the profession.

J. RUSSELL EASTMAN, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY.

MEETING OF MAY 14, 1907.

Dr. Daniel Hopkinson presented a paper on *Malignant Teratoma with Report of Case Originating in Testicle, Retro-peritoneal Metastasis.* In the discussion Drs. W. C. F. Witte, R. Elmergreen, V. H. Bassett, and J. M. Beffel took part.

MEETING OF MAY 28.

Dr. A. G. Jenner read a paper on *Hyperacidity,* which was discussed by Drs. A. J. Patek and Wm. Ackermann.

Dr. V. H. Bassett presented a specimen of double intussusception probably originally caused by an intestinal polyp in the cecum. The lower intussusception was retrograde and had received into itself the upper intussusception. Both had become gangrenous. In the specimen five distinct layers of intestinal wall could be demonstrated between the lumen of the bowel which contained the elongated polyp and the outer peritoneal coat.

G. A. CARHART, M. D., *Secretary.*

SHEBOYGAN COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Sheboygan County Medical Society for April was held on the first, with seven members present. On motion, the secretary was instructed to correspond with the representatives of this district in the state legislature and inform them that the society approved of the plan to establish the first two years of a medical course at the University of Wisconsin, and urge them to lend their support to the bill granting the necessary funds.

Dr. R. M. Nichols discussed the *Therapeutic Value of Alcohol* and Dr. M. A. Froney reviewed the literature for the past month.

The regular monthly meeting for May was held on the 9th with 11 members and 3 visitors present.

Dr. Wm. Van Zanten's name was proposed for membership and referred to the board of censors for a report at the next regular meeting. A committee of three was appointed to arrange for an annual banquet to take place at Plymouth some time in June or July.

The secretary reported that 50 out of the 54 physicians practicing in the county had signed the insurance resolutions adopted last January.

The following resolution was presented and the committee appointed:

Realizing that the problem of contract practice is one of great and growing magnitude, that the abuse of this practice has caused many and great evils to creep into the legitimate practice of medicine, to the detriment and financial loss of the whole profession, and realizing that the problem is one that demands the careful and earnest consideration of the profession and that we, as representatives of the organized profession in the county, should be leaders in movements affecting the welfare of the whole profession in particular, and the laity in general; therefore be it resolved, that the president appoint a committee of five physicians, who shall investigate this subject in all its phases, in a spirit of fairness and good fellowship, and prepare a written report on their deliberations with recommendations as to a remedy, which report shall be presented to this society at its next regular meeting.

There being no further business the society adjourned. The next regular meeting will be on the 3rd of June.

W. F. ZIERATH, M. D., *Secretary.*

Following the meeting of the County Medical Society the City members held a meeting and formed a business association.

The following officers were elected: president, Dr. A. B. Boch;; 1st vice-president, Dr. E. Gunther; 2nd vice-president, Dr. C. Tasche; secretary and treasurer, Dr. G. H. Scheer.

A similar organization was in existence during the years 1903 and 1904, but for various reasons its became inactive. Its essential features were, the monthly publication of a delinquent list, refusal of medical services to deadbeats unless fees were forthcoming, the sending out of monthly statements on the associations bill heads, and the more prompt settlement of accounts.

During its short existence it was a decided success, so much so, that the sudden and unexpected affluence of its members created a state of over confidence in the laity and a laxity in the members in sending in their bills promptly to the secretary. The result was that the association quietly went to sleep. But its good effects were not forgotten. The urgent necessity for

reviving it has become very evident of late and the unanimity of opinion on that point resulted in the above meeting.

The officers of the association then constituted a committee of four to draw up suitable rules and regulations and attend to all the details of the organization.

The various clauses of the insurance resolutions adopted in January are being adhered to rigidly by the signers. No real test of the effectiveness of the resolutions has presented itself until lately. And lately matters have been decidedly interesting. The matter of getting the minimum fee of $5.00 has not caused the slightest trouble but it is insisted upon, that the fee shall be paid by the home office of the insurance company. Agents are more than willing to delve down into their own pockets and add two dollars of their money to the three dollars allowed by the home office, but according to clause IV of the resolutions that is not permissible. Such a procedure would work a hardship on the agent. Physicians in the county are adhering loyally to the various clauses of the resolutions and the general result has been of decidedly great benefit to organization and unity of action.

Mutual distrust and envy are being rapidly eliminated and confidence and co-operation are taking their places. The tendency is toward firmer union and more active co-operation in all other lines.

It is firmly believed that the four physicians in the county who have not signed the resolutions will do so when they are assured that their places as examiners will not be promptly filled in case of dismissal because of their adherence to the resolutions.

The outlook is very bright indeed, and Sheboygan County urges other counties to follow our example, and thereby add strength to the movement looking toward general economic reform in our profession.

W. F. ZIERATH, M. D., *Secretary.*

WALWORTH COUNTY MEDICAL SOCIETY.

The Walworth County Medical Society held their June meeting at Elkhorn. June 12. After a bounteous dinner at the Elkhorn House, we repaired to the Circuit Court room and took up the regular business of the meeting.

Dr. A. J. Rodman of Delavan was elected censor for three years in place of Dr. Wm. Hanover, removed. Dr. George H. Young elected delegate to State meeting and Dr. Edward Keiser alternate.

Dr. J. G. Young of Geneva Junction gave us his application and was made a member of the Society.

The following program was given:

(1) Memorial. Drs. D. B. Devendorf, J. B. Heminway and F. A. Rice.

(2) Diseases of the Vulva and Vagina. Dr. F. E. Matter.

(3) Pelvic Inflammations. Dr. A. E. Henby.

(4) Report of Case of Ectopic Pregnancy. Dr. Chas. H. Meyst.

(5) Preparation of Patients for Laparotomy and Their After Treatment. Dr. Geo. W. Fox, Milwaukee.

The papers were well prepared and the discussion brought out many interesting as well as valuable points. Drs. G. W. Fox and H. A. Reinhart of Milwaukee were present; Dr. Fox in addition to his most excellent paper

gave us a demonstration of how to prepare for a successful operation in an ordinary farmhouse. Both gentlemen were made honorary members of the Walworth County Society. The attendance was good, the interest keen and the meeting a very successful one, such a meeting as makes the secretary feel repaid for the efforts he has put forth in getting up the program. The next meeting is to be a joint one between the Dentists and Doctors and will be held at Lake Geneva some time during the last week of August or the first week of September.

M. V. DEWIRE, M. D., *Secretary.*

MISCELLANY.

Dr. Harvey W. Wiley, Chief Chemist to the United States Department of Agriculture, is about to publish a volume on "Foods and their Adulterations," and another on "Beverages and their Adulterations." The new National Food and Drugs Law, now in force, will doubtless stimulate a wide demand for these books.

Leprosy in Columbia. The latest census enumeration gathered about 4,000 cases of leprosy, most of which are confined to three districts. But few cases are found among those who live hygienically. Of the cases reported to be leprosy in one district, and examined by a well-known expert, less than one-fourth were found to be genuine leprosy, the balance being cases of syphilis.

Horse Meat dealers are enjoying a large patronage in Belgium. A horse's head perched in front of the shop, indicates the kind of meat sold, as it is rare for a dealer to handle both beef and horse flesh. Contrary to the general opinion, it is not the horses that are no longer fit for service of any kind, that are slaughtered for food purposes, but even colts and young horses. Rigid inspection of the carcasses is carried out before the meat may be put up for sale. The meat is sold at a little more than half the price of beef, and is said by "horse fanciers" to be very palatable. About 2,000 head were slaughtered in 1905.

Aphthous Stomatitis among cattle is epidemic in Belgium. Cattle buyers who visit infected stables are said to carry the contagion to farmers, and these transmit the disease to their cattle. Though the disease is not fatal, the animals affected emaciate rapidly and suffer a loss of milk.

"Man's Brain to be taken out and fixed." Thus the Chicago *American* announces to its readers what is going to happen to a Canton (Ohio) jeweler. "One of the most delicate surgical operations in the history of the practice of medicine will be undertaken within a few days at the Lakeside Hospital (Cleveland). The operation is for the purpose of readjusting misplaced brain cells, forced out of position by pressure on the skull resulting from a stroke of lightning. . . . . Mr. Wortman was prostrated by a stroke of lightning at the time of the great electrical storm in Stark County recently. Ever since he has complained of pains in the head and recently a stroke of partial paralysis necessitated his removal to a hospital in this city."

BOOK REVIEWS.

Rudolf Virchow. Letters to His Parents. 1839 to 1874. Edited by MARIE RABL, nee Virchow. With a heliogravure, 3 photos and an autograph letter. 2nd edition (second thousand). Leipzig, Wilhelm Engelmann. 1907. Cloth M. 6. $1.50.

These letters are a selection from those written by Virchow in the period from 1839 to 1864 to his parents, and were left by his father, who, with extraordinary care, had collected all notes, letters and documents concerning his only child. At the wish of Mrs. Virchow, they were published by his daughter, Mrs. Rabl, "in order to furnish to the friends of my father not only a picture of his mental development and his serious and laborious youth, but also of his sacrificing love to his parents."

As Virchow himself said in his eulogy of his father-in-law, Carl Mayer: "Only personal notes of the deceased can give what is of value for the thinking observer, the knowledge of the development, that which is most attractive for our human interest and most lasting for our memory, the understanding of the personality." This is amply furnished by these letters, which, by their completeness and their accuracy in describing that period of his life, have almost the value of an autobiography. They are preceded by his curriculum, written at his final examination at the gymnasium, a model of self criticism and truthfulness, and his examination essay, entitled: "A life full of work and labor is no burden, but a blessing," a principle he practiced all his life.

A few quotations will show what an important contribution these letters are to the characteristics of this pre-eminent man: "I sadly feel the gap in my knowledge, and I therefore never rest at any part of it; I love to learn, but I defend my opinion from conviction." "I esteem it as the highest that I am not dead to any phase of life, that every phenomenon of eternal nature and the human mind attracts me intensely. Anything of general importance, great and universal, fascinates me." "To be open was always my fault, and I always disliked to hide myself behind phrases." "My indomitable inclination to original investigations and my mental reservation may hide my love to you. It will always be as great as the admiration of your indefatigable industry." "This medicine is a work of Danaides; nothing is sufficiently investigated, all has to be worked over again by one's self." "Our Archives have gained in influence and distribution, and I am thus enabled to carry my point with consciousness, viz. to be the representative of a certain direction in medicine." In the revolutionary time he wrote: "I have the advantage that I am not now a half, but a full man, and that my medical credo is blended with my political and social ones."

It is remarkable to see how those qualities, on account of which Virchow was so admired in his glory, were fully developed in his younger years: his severe criticism of himself and others, his ardent love for the truth, his independent way of thinking, his mental pioneer work, his courage and invincible energy. We urgently recommend this intensely interesting book to every physician. (C. Zimmermann).

Tuberculosis as a Disease of the Masses and how to Combat It. Fourth Issue, Revised and Illustrated. With supplement. S. A. KNOPF, M. D., New York City. Published by Fred. P. Flori, 514 East 82nd St., New York.

The fame of this essay, which was awarded a prize of 4,000 marks as the best among 81 essays presented, by the "International Congress to Combat Tuberculosis as a Disease of the Masses," at its Berlin meeting in 1900, has reached many lands. The demand of a fourth edition in English evidences its popularity here, and the fact that it has been translated into 21 different languages proves that it has won equal favor elsewhere.

This essay is a concise statement covering the various questions that enter into a presentation of the subject. It is replete with helpful information and suggestions for the guidance of all who are likely to be in touch with tuberculosis in some form or other; it deals with the symptoms of the disease in its early stages, and with prophylaxis in those who are hereditarily predisposed; generous space is given to the consideration of sanatoria. The supplement takes in "Home" and "School Hygiene," "Installation for the Sanatarium Treatment of Consumptives at Home," and an interesting "Historical Review of the Antituberculous Movement in the United States."

The pamphlet, published practically at cost (25 cents) ought to be in the hands of every practicing physician. It may be obtained from the publisher.

A. J. P

American Practice of Surgery. Edited by Drs. JOSEPH D. BRYANT and ALBERT H. BUCK, of New York City. 778 pp. William Wood & Co., New York.

The second of the eight volumes of this work has been issued recently and it may be said in general to come up to the expectations held out for it.

The first part, by Surgeon Leys of the United States Army, is devoted to diseases belonging in varying degrees to the domain of surgery, including leprosy, plague, glanders, anthrax, mycetoma, rhinopharyngitis mutilans, and scurvy. The article is well illustrated and is very complete—especially regarding diagnosis and surgical treatment.

In the second part is given a general survey of tuberculosis and syphilis in their relations to surgical work, by Dr. V. P. Gibney and E. L. Keyes, Jr. The statement that the surgeon is justified in regarding a cold abscess with indifference so long as it shows no signs of encroaching upon a joint, and so long as it does not invade vital tissues, will probably meet with the disapproval of many surgeons, and in fact Dr. Jonas in his reference to cold abscess in the same volume, states that the expectant treatment is now almost obsolete and that it was practiced in the pre-antiseptic days when incision was regularly followed by mixed infection. While Dr. Gibney advocates free incision as a last resort, Dr. Jonas states that this method has become the one most frequently employed in all cases except psoas abscess. No doubt there is room for considerable difference of opinion, but very likely the middle path, of aspiration and injection, repeated if necessary, or of aspiration in conjunction with Bier's suction treatment and hyperemia, deserves a wider application.

The subject of syphilis is very well set forth by Dr. Keyes, and his

opening statement that syphilis requires a surgeon's diagnosis, but rarely a surgeon's treatment, seems very apt. His test course in cases of doubtful syphlilitic lesions, consisting in mercurial injections twice a week accompanied by internal administration of 10—15 grs. of potassium iodide over a period of two weeks, will probably appear insufficient in more than exceptional cases.

The next section includes the following articles:

Abscess—Dr. A. F. Jonas.

Ulcer and Ulceration—Dr. W. McDowell Mastin.

Gangrene—Dr. A. C. Wood.

Surgery of Skin Diseases—Dr. D. W. Montgomery.

Surgical Diseases and Wounds of Muscles, Tendons, Bursæ, and Connective Tissue—Dr J. C. Stewart.

Surgical Diseases and Wounds of Nerves—Dr. DeForest Willard.

Surgical Diseases and Wounds of Lymph Nodes and Vessels—Dr. C. N. Dowd.

These are all well written and cover the subjects in a thorough and comprehensive manner. In the section on skin it may seem questionable whether the limited surgical treatment occasionally required in acne vulgaris and acne rosacea entitle these subjects to a very extensive general consideration in a system of surgery.

The remaining chapters on "Burns" and the "Effects of Electric Currents" by Dr. B. T. Tilton, and on "Frost-bite" by Dr. P. M. Pilcher, as well as the "Treatment of Wounds of Soft Parts" and of "Gunshot Wounds" by Drs. Darnell and Borden respectively all deserve special mention and reflect credit on the authors for the very careful and satisfactory manner of presentation.

The volume comprises nearly 800 pages. Aside from the minor criticisms offered, the work deserves to be heartily recommended, and when complete no doubt will command a high place in surgical literature. F. J. G.

Practical Text-Book of Midwifery for Nurses.—By ROBERT JARDINE, M. D., M. R. C. S. Eng., F. R. S. Edin. Cloth, 268 pp. Third Edition. Price $1.50 (net). Henry Kimpton, London. W. T. Keener & Co., Chicago, 1906.

The book comprises the lectures delivered to nurses in the Glasgow Maternity Hospital. The care of the patient during the puerperium being largely in the hands of the nurse, the author has laid down strict rules for aseptic care of the parturient.

The text is amply illustrated with good cuts. The first eight chapters give the nurse a sufficient knowledge of the anatomy and physiology of the female generative organs with a brief consideration of the more common symptoms and disorders of pregnancy.

The chapters dealing with the mechanism and management of labor are sufficiently clear to enable a nurse in an emergency to overcome most difficulties. The amount of space given to abnormal labors is rather long, considering that the book is intended only for nurses, as in these cases medical aid is usually abundant, but perhaps is a wise precaution as many nurses believe that labor cases are among the simplest of their duties. Infant feeding and

the differences between cow's and mother's milk are touched upon in the last chapter.

A valuable book for any nurse who contemplates doing obstetrical nursing (G. A. C.)

The Necessity of Examining the Eyes of Children Before Entering School.—SIEGRIST, Bern. (*Klin. Monatsbl. f. Augenheilk.*, Beilageheft, XLIV, 1906). Astigmatism is one of the chief causes of impaired vision, which compels the children to greatly shorten the reading distance and thus gives rise to the development of myopia. The examination of the eyes of children before entering school and the correction of all errors, especially astigmatism, is therefore one of the first demands of hygiene and humanity. (C. Zimmermann.)

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Operative Treatment of Tumors of the Brain and Spinal Cord.—(78th Congress of German Natural Scientists and Physicians, 1906, *Deut. Med. Woch.*, 1906, No. 49, p. 2011). KRAUSE, Berlin, cured a man, aged 35, by extirpation of a tumor of the occipital lobe in two stages, with disappearance of hemianopia.

SCHULTZE, Bonn, gave the following resumé: Out of 97 brain tumors, 19 were operated upon, but only one case, a tumor of the cerebellum, was cured and remained so for several years. In one case considerable improvement was obtained by puncture of the ventricles, according to Neisser, so that papillitis, intense amblyopia and headache subsided for 8 months when the patient died. In a few cases the affections were relieved for several months by palliative trephining.

OPPENHEIM, Berlin: Since 1903, 27 of his cases were operated on by a number of surgeons. 3 (11%) were cured, 6 (22.2%) temporarily improved, 15 (55 5%) died, the palliative trephining in 3 gave uncertain results. In 23 out of the 27 cases, his general and local diagnoses were correct. According to his experiments, out of 10 or 9 correctly diagnosed cases, carefully selected for surgical treatment, only one has any prospects of perfect recovery. The doctrine of von Bergmann that brain surgery is a surgery of the central gyri, has lost its value by recent experiences. None of Oppenheim's cured cases belonged in this category.

SAENGER, Hamburg, spoke of his experience in 19 cases of palliative trephining. In 2, results were not attained until the openings were enlarged and more cerebro-spinal fluid let out. In 2, it was unsuccessful, in one it was immediately followed by stupor and death. In all others the relief was evident: headache, vomiting, convulsions and other symptoms of cerebral pressure, as papillitis, abated and subsided entirely after a few days in some of the cases. The commencement of impairment of vision is the time for operating. If it is done later, atrophy of the optic nerve is liable to occur. The part of the skull over the probable site of the tumor is to be trephined. If no localized diagnosis is possible the right parietal region is to be selected, as from there the least damage is to be expected. Lumbar and

ventricular punctures are not nearly as effectual as trephining the skull. S. sums up: palliative trephining of the skull performed by an experienced surgeon today is a very beneficial operation, almost without danger, which is to be recommended in every case of inoperable brain tumor, to relieve the sufferings of the patient and especially to save him from threatening blindness.

NONNE, Hamburg, warns against lumbar punctures in tumors of the brain. (C. Zimmermann.)

Syphilis of the Eye and Its Annexes.—F. TERRIEN. Late chief of the Ophthalmological Clinic in the University of Paris. 316 pp. G. Steinheil, Paris, 1905. 4 Fr. ($0.80).

Terrien's book will be very welcome to every ophthalmologist as it gives a very complete presentation of syphilitic affections of the eye. As it also addresses the general physician for whom the specific eye troubles are likewise very important, the author has prefixed anatomical remarks and has devoted some space to the objective methods of clinical observation, especially with regard to the ocular palsies and the affections of the pupils. Although these subjects are contained in the text books, Terrien's exposé is very clear and contains valuable original suggestions, particularly as to the clear understanding of the positions of double images for diagnosis of muscular paralysis.

The subject proper is divided into hereditary, acquired syphilis, and treatment. In hereditary syphilis the interstitial keratitis receives, of course, the greatest share, but the affections of the retina and choroid with various changes of pigment, with references to the fundamental researches of Sidler-Huguenia, are duly considered.

Acquired syphilis is for practical reasons, discussed under primary, secondary and tertiary forms. These are followed by a chapter on parasyphilitic manifestations (tabes and general paresis), with a detailed discourse on pupillary reflexes, their significance and pathogenesis, modification of form and diameter of the pupils, the ocular palsies and atrophy of the optic nerve with its consecutive functional troubles (field of vision, etc.)

Of all kinds of treatment Terrien prefers the intramuscular injections with soluble mercurial salts, the technic of which is minutely described. "Huile grise" is adapted for very violent forms, but is not without danger, as well as the intravenous injections. Injections of calomel are principally rejected. All methods of treatment, including that with iodine, are exhaustively represented.

The reviewer read this book through from beginning to end and enjoyed it immensely. It is written very fluently and shows everywhere the large experience of the author in practice and literature up to date. It thus conveys an abundance of useful instruction and deserves the highest recommendation.—(*C. Zimmermann.*)

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THE WISCONSIN
MEDICAL JOURNAL

JULY, 1907.

ORIGINAL ARTICLES.

PSYCHOTHERAPY.*

BY F. C. STUDLEY, M. D.

MILWAUKEE, WIS.

Because of their intimate association, it seems hardly necessary to mention the important relation which exists between mind and matter, as these terms are commonly used, and as a general biological proposition; and still further the relation which exists between all forms of matter, and by inference the relation which exists between mind, as one form of matter, and mind, the influence of one mind upon another; but the application of this relation to the treatment of disordered or diseased conditions, is a department of therapeutics of comparatively recent development.

We all know that sudden fear and sudden joy have caused death, and we comprehend theoretically, the sympathetic and vasomotor depression which accompanies these states and causes this fatal result. We know that the depressing emotions react disadvantageously to the physical economy, and that these depressing emotions are just as frequently the result of physical disease, whether or not the emotional disturbance is primarily the indication and result of purely organic disharmony. We all recognize intuitively the bracing influence of hope and of courage in determining recovery of the sick; and that no matter how elegant his manners might be, the appearance of the undertaker in the sick room would not be conducive to that frame of mind which materially assists convalescence.

We know these things intuitively; but not all of us by any means have brought this idea out, dissected and developed it into a therapeutic unit, and finally embodied it consciously in our practice.

*Read before the Milwaukee Medical Society, March 26, 1907.

In 1775, Mesmer, a native of Swabia, practiced the application of animal magnetism in the cure of disease. He regarded this animal magnetism as a force, or a fluid which went from one to the other, capable of transmission without touching the patient. His method, as described in the American Encyclopedia, was to seat himself in front of his patient with his eyes steadily fixed upon him, and to perform with the hands a few preliminary manipulations about the epigastrium in order to establish what he called the magnetic relation. He then proceeded to operate upon the diseased part by touching it with the right hand on one side and the left on the other, and performing certain vibratory movements with the fingers which were left free; an essential condition being that actual contact should be kept up on the two opposite sides in order that the magnetic influence might circulate, passing into the body on one side and out on the other. His idea with regard to the nature of the influence termed animal magnetism, is as follows: (1) There exists a mutual influence between celestial bodies, the earth, and animated beings. (2) This reciprocal action is regulated by mechanical laws, which up to the present time have been unknown. (3) Animal bodies are susceptible to the influence of this agent; and they are affected by it on account of its disseminating itself through the substance of the nerves. Mesmer's success in treating disease was so great, and the influence of his theories became so widespread, that the French government in 1784 ordered the Medical Faculty of Paris to make an investigation of Mesmer's theories and to report upon it. In their report to the government the commissioners say: "in regard to the existence and utility of animal magnetism, they have come to the unanimous conclusion that there is no proof of the existence of animal magnetic fluid; that this fluid having no existence is consequently without utility; and that the violent effects which are to be observed in public practice are due to the manipulations, to the excitement of the imagination, and to that sort of mechanical imitation which leads us to repeat anything which produces an impression upon the senses."

About 1840 Mr. Braid of Manchester, England, discovered that he could produce sleep in most persons whom he tried by ordering them to look steadily at some small object about a foot from their eyes, and above their level. He gave the name of "Hypnotism" to the sleep thus produced.

There is no doubt whatever that Mesmer entirely misunderstood the phenomena which he has the distinction of having first brought into prominence. I think it will hardly be claimed that the sensa-

tionalism of his seances was the outcome of conscious charlatanism and necromancy; but his knowledge of psychological phenomena was so meagre that he totally misinterpreted a perfectly natural subjective state.

This paper will not go into a recitation of the multitudinous phenomena of hypnotism. They are too well understood by all of you both in the imitation and the genuine. My only object is to bring before your notice a certain very practical side of the subject which is represented by the word "suggestion". Suggestion as a branch of rational therapeutics has undoubtedly come to stay. There are few subjects which are so thoroughly discussed at the present time, and upon which so many interesting monographs are being written by European physicians as this of "suggestion."

It is likewise unnecessary to state that the hypnotizer has no hypnotic power. The idea of a fluid emanating from the hypnotizer to the hypnotized was exploded before any of us were born. It is purely a subjective influence very closely analogous to the condition of reverie of the poet, or that of abstraction of the deep thinker. In both cases and by an act of volition, for we all have the power of volitionary direction of the attention, the Will is placed in abeyance; in the case of reverie, automatic action of the brain goes on in one who has purposely placed himself in a mood or mental state where external impressions are given free swing, and imagination active. In abstraction, the state of mind which the reasoner puts himself into, external impressions are by an act of volition purposely excluded, and attention guided and directed along the line of thought elected. He represses the fantastic forms of imagination, and permits attention to follow only the logical sequence of ideas.

These mental states do not approach the level of actual dreaming or of sleep. The impressions which come to us at these times are not so absurd but that the absurdity may be rejected; but realities do not make the impression here that they do upon one whose senses are all attuned, whose faculties are wide awake. If you have not heard thus of Dr. Robert Hamilton, a well known professor of Aberdeen in the last century, and a deep thinker, who frequently met his wife on the street, pulled off his hat and expressed himself apologetically for not having the pleasure of her acquaintance, or of how he would run against a cow in the road, turn round, beg her pardon and call her Madam, you have then certainly heard of similar instances which demonstrate that subjective mental state which we call abstraction.

The reverie of the poet is a natural reverie, an auto condition;

the reverie of the subject for suggestion is in great part an induced condition, a condition of induced reverie.

In this mental state, as well as in the condition of natural reverie, external impressions are profound. Consider for a moment the impression which is made upon a sensitive person by a very vivid dream, particularly a dream out of which one is suddenly awakened. Let this dream be repeated the following night, and successively for several nights, and the impression made upon her becomes more than temporary, it is well nigh permanent. I have introduced this illustration merely for the purpose of indicating to you by analogy the force of those impressions made upon the mind when volitionary direction of the attention is in abeyance.

It may well be questioned whether anyone of us is free from the influence of suggestion in its larger sense. Is not every act of our lives the product of an auto-suggestion? If this is so then auto-suggestion governs our entire lives. I do not want to be misunderstood in this matter. I am well aware of the fact that reasonable beings are governed by reason; but what starts the process of reason but an idea, the product of unconscious cerebration, of auto-suggestion?

Let us digress for a moment and consider the every day occurrences which prove the existence and the influence of suggestion. The crying babe yields himself willingly up to the soothing lullaby and the monotonous rocking of one in whom he has implicit confidence, and presently falls asleep. And what do you call that condition common to so many second year medical students who seriously apprehend that they have this and that disease, ordinarily a description of some disease, the last medical lecture they have listened to? How are to be explained all the miraculous cures at the well known shrines, and at religious revivals? To what extent auto-suggestion enters among the insane in the production of the "dominant idea", so that delusions of being Kings and Queens, the Holy Ghost and Jesus Christ are formed, is not certain; but I am inclined to believe it is of great influence.

Is it not the baneful influence of suggestion which determines the influx into institutions for the insane of manias of a religious coloring which follow a period of religious revivals? Where do you place the cause of the perennial crop of embryonic Jesse James, but in the suggestive influence of the five-cent novel? Does not the deterrent effect of punishments, life imprisonments and executions of the criminal class exert its force through the suggestion of example? Are we not all aware of the danger among highly nervous people of making any indiscreet remark, suggesting the possibility of serious outcome?

You must all remember in this connection the story of the country boy who worked himself up to a positive belief that he was suffering from cholera, told that the symptoms were diarrhea, that he passed first the contents of his bowels and then the bowels themselves; of how his wag of a doctor, annoyed at repeated calls at all hours of the night, purchased a few yards of calves' intestines, and while his patient slept placed them between his legs, and how the boy upon awakening and sensible of his serious dilemma, crowded his presumed intestines all back again "by the help of God and the handle of his tooth-brush."

What is the essence of that continuous and monotonous talk of the surgeon to the child who is having a cut finger dressed but suggestive therapy? Every surgeon knows that the assurance which he gives his patient about to go under an anesthetic that everything will be all right, that he need have no fear, that his pulse is good and strong, and the like, goes far toward removing a very annoying feature of the administration of the anesthetic.

The Keeley Cure for Alcoholism is based fundamentally upon suggestion; and while we may decry the method as that of the baldest charlatanism there is no room for doubt as to the results of the procedure. In the first place the unfortunate victim is made to understand upon his arrival at one of these institutes that he is not past help, regardless of the facts of the matter; that he is the unfortunate victim of a disease which up to the present time has never been correctly understood; that he is not a weak-willed individual, and his debauches not the result of moral lapses; but that a condition of very rare and unusual interest exists in his case. He sees about him the jubilant faces of sobered up inebriates who assure him that they are cured. He is told that after a certain length of time during which he will be treated with the rarest of rare metals, with solid gold, he will have lost all desire for whiskey. About this time, and after he has had his regular drink of whiskey a hypodermic injection of apomorphine causes the immediate vomiting of the liquor, and as often as he essays to test the matter the hypodermic is repeated. Is it any wonder that credulity displaces skepticism? All this time he is treated to didactic lectures illustrating in florid hues the destructive ravages of alcohol upon the tissues of the stomach, kidneys, liver and brain. At a certain time it is announced that he is cured. He is instructed to take the tonic, informed that he is eligible now to the Keeley Cure Club, and given further to understand that if he falls by the wayside, never again to apply for a treatment which will be denied him. The

entire procedure is based purely upon suggestion colored with the rankest quackery—a procedure which is to be decried simply because of its dishonesty to the patient. In this connection permit me to read to you the conclusions of Dr. L. D. Mason of Brooklyn, whose paper upon the psychic treatment of Inebriaty, and its relation to so-called cures, which appeared in the *Journal of the American Medical Association* of February 23, 1907.

"We are beginning to recognize psychotherapy as a valuable adjunct to general therapeutics. If the quack and the medical humbug—illiterate, unscrupulous, unscientific—have met with success even in their rough and ignorant manipulation of this, the most delicate and refined of all our methods of therapeutics, what a future is in store for those, who, fully educated and thoroughly conversant with this branch of medicine, win new laurels in the field of mental therapeutics, especially in inebriety. Nor must we fail to learn the lesson though it come to us from an irregular source.

SUMMARY.

(1) The so-called "cures", or specifics for alcoholism or inebriety, do not attain their effect through the action of drugs, but through the influence of psychic law, which is the primal factor in the "cure".

(2) The action of drugs is indirect and secondary, but by mental suggestion may have a psychic value.

(3) The class of alcoholics or inebriates who are susceptible to such influences is limited to such persons as are responsive, and in the earlier or formative stage of the disease.

(4) The originators of the so-called "cures" are illogical in their use of remedies, and therefore, untrue in their assertions, and in their practice are not in accord with rational therapeutics or the theory and practice of Medicine. They are not ethical, nor in any sense humanitarian and, therefor, should be excluded from all the protection afforded legitimate or regular medical practice and should be placed under the laws which regulate and control proprietary or "patent" medicines.

(5) There is not any medicine, drug, preparation, or cure-all which is a specific in the treatment of alcoholism in the same sense that quinine is a specific for malaria, or mercury for syphilis.

(6) In a certain class of selected cases of inebriety it is proper to use psychotherapy as a therapeutic agent, especially in the earlier stages before complications develop, and when the patient is responsive

to such treatment. In cases complicated with organic disease appropriate medical treatment should precede or accompany psychotherapy if the latter be deemed advisable."

And as to the advantage of the Weir-Mitchell treatment of hysteria and neurasthenia, there is no question whatever as to the results. It has become a well known therapeutic procedure, in cases which are not amenable to any other form of treatment. The application of rest, isolation and milk diet for the first week or two, and then the overfeeding thereafter appears to exert a positive cure in most of the cases. But it is by no means certain that the rest and over-feeding accomplish these results. It is far more likely that, having placed your patient away from the hurtful influences of relatives, and under the constant care of a wholesome minded nurse, and daily under the influence of a physician's philosophic council, suggestion accomplishes the cure under a specially favorable and selected environment.

A word now as to the efficacy of Christian Science. The Christian Scientist has consciously or unconsciously, depending entirely upon whether he is ignorant or a hypocrite, or both, or neither, practiced a method in the healing art which has been used from time immemorial. that of Suggestion, only he has cloaked the process with the mantle of religion, which he calls Christian Science, possibly the most un-Christian, and the most un-scientific creed or belief of our day, a philosophy which tells the sufferer that pain is all moonshine, and that death is simply sin. It may be asked, in view of the fact that cures are accomplished by the faith cure, whether the result does not justify the means. The difference between the efficacy of Christian Science and medical suggeston, however, is very great. In the case of the Christian Scientist, you place in the hands of a set of unreasoning fanatics, with all deference to my belief that they number among their adherents many apparently able advocates, who recognize no limitations, no knowledge of disease, a power which upon more than one occasion has shown itself extremely disastrous to the community, and of great danger to the health of the body politic. Under a physician's care, he knows how and where to apply this aid, and is capable of an honest inspiration and a wholesome assurance of his patient which is genuine. The Christian Scientist tells the patient who has small pox or diphtheria to get up out of bed and go shopping, that he has no real disease. He assures the patient with typhoid fever that he must rid himself of the notion that he is sick, to eat any and everything, with no regard whatever for sanitation. When any religious sect suggests that any really dangerous disease is a myth, then suggestion as an art

is greatly abused. For not all diseases are to be considered proper for psychotherapy to the exclusion of drugs, sanitation and general hygiene. It is not to be expected that scarlet fever and cancer, diphtheria and syphilis are to be treated by this agent as a cure-all; for while suggestion has its place as an adjunct to the treatment of all diseases it would be manifestly absurd to depend upon it alone to the exclusion of medication, rest, and in cases of contagion, of isolation.

There is such a thing as physical suffering, and there is a moral suffering as well. Encouragement and kindly words will do a great deal to mitigate this suffering; and in this sense psychical means do not cure, but they relieve, console and hasten cure. There is no more important factor in the general subject of caring for the sick than a proper application of forceful moral encouragement.

Subject every quack system of healing of the present day to analytical dissection of its parts, whether it be called Divine Healing, Natural Healing, Chrstian Science, Mental Science, or what not, and you find at the base of all of them this fundamental agent of Suggestion cunningly worked in under various garbs, all alike proclaiming a mysterious influence, seductively hinting that the source of the cure emanates from the mysterious "beyond", which demands first a faith without reason. An old man who claims to be the reincarnated Elijah stands before an audience in Chicago, making the most preposterous claims of his divinity, while in the same breath he tells of the millions of dollars he has harvested. His antics in the pulpit call forth ridicule from the intelligent, and inspire the credulous with belief. He works himself and his audience up to a high pitch of excitement, commands them to bring their money and property to him, as the price for salvation, and here we find the impossible Dowie, a shrewd old fellow, whether hypocrite or madman, whose life history and the history of the building of the city of Zion, and its final bankruptcy illustrate not only the force of Suggestion, but also what an ignominious end, what suffering and poverty, the application of this agent may cause if placed in the hands of anyone of great personal magnetism.

A farmer, who, like young Lochinvar, comes out of the West, convinced that he has been grievously wronged, and with all the fixed notions of the impractical reformer, decides to march on to the Capitol at Washington and present his petition for redress to the President in person. The daily papers give great publicity to the movement, supporters loom up on all sides, and soon we have the Coxey's army,—an itinerant mob of ignorant enthusiasts, swayed and controlled by this

dominant idea, a suggestion which had its birth place in the daily press.

The contagion of the human mind in its course of development ought to be seriously considered in the light of its reaction to Suggestion, particularly among children and the weak generally. All stories of the bogie man, and of gosts have no place here. Why should children fear to go into the dark? Why is it that so many people fear death? Death is simply a tribute to nature; but when men picture it with groans, distorted features, convulsions, weeping friends and the like, death makes cowards of us all. Superstition has its birth in ignorance, as a background, but adverse suggestion gives to it its terror. Certainly the habit among so many to undertake no enterprise on Friday has gathered its force and controls its victims simply through repetition of this absurdity. You can cause a man to become downright sick and very apprehensive of his life if a half dozen friends chose to remark disparagingly about his appearance. And you can cause many a man entitled to die to brace up and live through the sheer force of encouragement. There is a wide field before you in the application of Suggestion to influence the course of disease. There is hardly any pathological condition of the mind or body where suggestion, persuasion, and explanation may not be successfully applied as an adjunct to other treatment. The surgeon will not fail to reassure his patient and in doing so greatly diminish the excitement and hopelessness which reduces the vital powers and favors the development of shock. The physician in general practice, who comes in contact daily with diseased conditions of the body, exaggerated by various fears, intensified through the very alarmist temperment of his patient, will sit down and reason his patient out of his nervous absurdities, substituting courage and hope for despair. He must be an optimist ever—never a pessimist. Francis Bacon was accustomed to call two physicians whenever he became sick—the one to diagnose his malady and prescribe the physic—the other to do nothing whatever but talk to him and brace him up. He says that he invariably threw the physic out of the window when the first was gone, and he usually found no need whatever to take it. You will be gentle yet firm with your patients—listen attentively to their complaints—but when you have once made up your mind that the condition is one adapted to Suggestive therapy, you will refuse to permit the patients to again refer to their fears. You will substitute in a tactful manner a healthy habit of mind, and through education of the patients' reason make them masters of themselves, teaching them how to direct their atten-

tion away from the irritating and groundless fears which prevent them from occupying positions in the community to which they would otherwise be entitled.

You must not laugh at your patient's fears in a spirit of brutal contempt, but on the contrary you will dissipate her fears after first gaining confidence through tolerant disagreement. You must boost your patients all the time. Never recede from a position once taken and positively affirmed. You will present your arguments earnestly and forcibly. You will get from your patients an expression of positive conviction that they WILL get well. There can be no half way feeling upon this matter, for once you accept a half hearted expression of hope in the matter, you concede the possibility of failure, a stand which is fatal. You must inspire your patients—arouse all the fire in their souls, and create an enthusiasm and conviction of certain cure. The manner in which you may accomplish this is as variable as the disposition of your patient. With one you must put the staccato to every uttered word; with another you will have to adopt a persuasive eloquence which is none the less forceful. Explanation is sufficient for one, a command is necessary for another. The laugh of a wholesome minded physician succeeds frequently in dissipating a host of hypochondriacal notions. Unbounded self-confidence and fearlessness is necessary always. If you are afraid that the patient will laugh at you you will never succeed in impressing her. The physician who believes positively in himself and his drugs, succeeds in inspiring his patient with that confidence which means half the cure. I do not care what drug you administer to your patient, it will not have nearly the force it would have if the patient has absolute confidence in them; in other words, drugs mixed with brains will accomplish much more than drugs alone. Suggestion means practically the process which makes a person believe what at the time he does not believe is true. It is not necessary to put your patient into the hypnotic sleep to accomplish these good results; it is quite enough for the patient to keep his eyes closed for ten to fifteen minutes, and listen attentively to the suggestions which the physician makes to him. And the cure of any complaint amenable to this treatment is due to the force gathered from such repetition of such suggestions on the patient's mind.

It is not necessary to hypnotize the patient in the sense generally conveyed by the word hypnotism. And this is the great advantage of direct suggestion over hypnotism, that it may be used ad libitum, as it produces no apprehension on the part of the patient. For the

purpose of suggestion a condition of light lethargy is of vastly more therapeutic value than the condition of somnambulism.

I cannot too strongly decry the general use of hypnotism in the psychoneuroses, for I am firmly of the opinion that it is a process which tends to disorganize a brain already possibly too weak in volitional direction. I cannot but believe that the habit of yielding up all volitional control of ones self, of practicing and indulging in this reiterated suspension of that volitional power over the direction of the thoughts, which is the highest attribute of the human mind, can scarcely do otherwise than tend to its permanent impairment.

The following case illustrates some of the points which I have tried to bring out in this paper.

CASE 1.—Miss May C., *aet* 42, a native of Wisconsin and unmarried, entered the Riverside Sanitarium August 10, 1906, and the following history was obtained from her brother. Mother living *aet* 80; father died of apoplexy at 42 years of age. Paternal aunt and uncle are said to have been feeble minded. No history of alcoholism or tuberculosis. Patient's personal history: A high-strung, wilful, peevish girl all her life, given to exaggeration of her pains and aches always. Grew up on nervous lines. Subject to violent attacks of temper. As to diseased conditions, the patient suffered an attack of erysipelas 25 years ago, but otherwise history negative. Has been treated for stomach troubles, uterine catarrhs and displacements, (one ovary has been removed), all apparently to no purpose. Patient complains of great depression following the death of a sister one year ago, and recently the death of her father, two weeks ago. Following this latter death she had a succession of attacks of hysteria for which morphine is said to have been prescribed. A decided inclination to develop the habit was immediately noticed. At the time of admission the patient weighed 75 lbs. Her weight 10 years ago was 130 lbs. She had to be carried to her bed, where she promptly gave us a very good imitation of a fainting fit. Over the spine and ovarian regions were the classical tender points. Anesthetic areas over the left side of the body, the globus hystericus, and marked emotionalism characterized this very fair sample of the ordinary case of hysteria. Her conversation was a simple narrative of fancied slights, of inexpressible pain and suffering, discouragement over the outlook for the future, all ending up with the inevitable attack of shrieks and sobs.

When she had finally quieted down I permitted her to tell me the history of her life, simply a recitation in minute detail of the experiences of any hysterical young man or woman, who fail to recognize their own faulty attitude toward the world, and assume that the twist is all on the other side. After this, I made a thorough examination of the patient, and after satisfying myself that the condition was one of pure hysteria, with no organic diseased basis in fact to account for the trouble, I made it a point to have several very plain talks with her, pointing out by way of explanation the functional character of the

entire disturbance. She was confident that this rectal irritation and that uterine sensation were the cause of all her troubles. She was almost insistent that I discover some serious organic basis to account for the condition. This I refused to do. After the first vaginal and rectal examination I refused to make another. She was almost in despair. Although practically unable to walk she threatened to get up and leave the house. To intimate even that after the operations she had gone through, the numberless doctors who had treated her, that the case was practically all moonshine, was an insult to her intelligence. I assured her that no matter how many times she had tried various methods of cure in the past, that I was fully convinced of the nature of her trouble, and that first and foremost we must improve nutrition, and let the result decide which of us were right in the diagnosis; and to this end I outlined the following course of treatment: She would have to go to bed and stay there for from four to six weeks, that she would get nothing but milk for the first week, and after that full diet with the milk in addition. I gave her a tabulated card showing her just how much food and of various kinds she would thus consume during the twenty-four hours. I explained to her that she would not be permitted to have any company whatever other than the nurse and myself during this time, that she must have absolute mental and physical rest in its entire sense. As expected I met with an immediate and flat refusal to undergo any such brutal treatment. She would die of ennui. Milk was a food she never could tolerate. It made her vomit every time she drank it. (I learned afterwards that this patient could vomit at any time she so desired.) How was she to get strong lying in bed? After the usual amount of stewing she finally consented, however, to try the treatment for a few days, and immediately commenced the milk diet, the quiet and secluded room, and by no means the easiest part of the treatment, her daily philosophic councils. As was expected she vomited the milk immediately after taking the first dose, and sent for me and grimly pointed to the curdled milk at the bottom of her jar. "I told you so," was all she said. She refused to persist in the treatment at first, and now she registered a flat refusal. This refusal held out about as long as the former ones. Her objections had to be overcome through tact, persuasion, and reasoning. I told her that I knew that she could vomit whenever she pleased, and urged her strongly to overcome this weakness. I found that when I remained with her for several minutes after she had taken her milk, her inevitable tendency to hawk and gag for the purpose of rejecting the food, was prevented by an earnest conversation. After several days of this preventive care the milk was thereafter retained. She came to her senses gradually, took her nourishment regularly, and made no further attempt to vomit. Upon the seventh day full diet was substituted, with milk eight ounces between meals and at bed time. She now began to take on weight, and at the end of the fifth week had made a total gain of forty pounds. She was assured every day that increase in weight and complete recovery were synonymous terms. This suggestion was repeated every

day regularly. Coincident with the increase in weight a total disappearance of all the nervous symptoms gradually occurred, so that when she was discharged at the end of eight weeks not even the ghosts of her past phobias remained. I have heard from her frequently since she left Milwaukee, and she assures me that there has been no return of the cancer.

PROLAPSE OF THE UMBILICAL CORD WITH A REPORT OF FOUR CASES*.

BY J. H. SURE, M. D.

MILWAUKEE.

The following four cases have stimulated me to make a study of this more or less rare complication. It would seem that the problem in question is how to lessen the high fetal mortality associated with this condition, and having exhausted all references at command, I bring this paper before you for discussion.

CASE I.—Mrs F. Z., Polish, IV. para, previous labors normal. Last child born fourteen months ago. Was never in bed longer than the first three days of the puerperium. Labor was ushered in by a sudden escape of the amniotic fluid on the 3rd of May, 1905, at 11 P. M. A midwife was called and found a prolapsed arm. I was called on the 4th at about six A. M. I found the woman exhausted, the amniotic fluid drained off, the right arm prolapsed and with it about ten inches of umbilical cord. Dilatation about three-quarters and the uterus more or less tetanic from the ergot the midwife administered. After some hesitation I decided on podalic version. I engaged the breech and as I could not do an immediate extraction I waited. After one and three-quarters hours, the fetal heart sounds becoming less frequent and muffled, I extracted the head in ten minutes. The baby was livid but I could not get it to breathe.

CASE 2.—Mrs. L., Polish, XI. para, youngest child eighteen months old; all were born by the vertex with the exception of the third and the eighth which were born by the breech. Labor began suddenly on the 29th of May, 1905. The sudden rupture of the membranes and the appearance of the cord outside of the vulva frightened the patient and the attending midwife. I found the head presenting but not engaged, the cord was beating violently and higher in the vagina a prolapsed arm was felt. I carried the cord in the palm high over the head, replaced the arm, engaged the head by combined external and internal manipulation, applied forceps and delivered a livid baby in seven minutes which was later resuscitated.

CASE 3.—Mrs. R., Polish, IV. para, previous labors normal. Youngest child twelve months old. Was in the habit of doing the

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family washing on the third day of the puerperium. She first felt labor pains on July 14th, 1905. The attending midwife recognized a transverse presentation with a prolapsed cord. Upon arrival dilatation was complete. An immediate podalic version and extraction was done and the child resuscitated. The operation took eight minutes.

CASE 4.—Mrs. G., Polish, VI. para, previous labors normal, all fourteen to eighteen months apart; was frightened to find herself in a pool of water while in bed at midnight of July 30th, 1906. The midwife found an arm and cord presenting. Upon examination I found the head impacted in the right iliac fossa, the right arm presenting and the cord prolapsed. Dilatation was far from complete; version was done and extraction delayed. Upon recognition of pressure symptoms one hour later extraction was done in seven minutes and a livid child delivered. Although the heart was beating and artificial respiration faithfully tried the child could not be resuscitated.

Synonyms. Prolapsus funis; chorda previa.

Definitions. If the umbilical cord is felt through intact membranes, in front of or along side the presenting part, the cord is said to be presenting; if, however, the membranes are ruptured, it is said to be prolapsed. V. Winckel disregards the condition of the membranes and considers the cord as presenting when still in the uterine cavity, and prolapsed when beyond it in the vagina. *Normal Position.* Normally the umbilical cord is located on the abdomen of the child in an artificial groove formed by its flexed thighs and crossed arms.

Its prolapse is, under normal conditions, prevented by the intrauterine tension, assisted by the labor pains and contraction of the abdominal muscles all of which tend to keep the cord in the upper portion of the amniotic sac, while at the same time, the head fills out the lower uterine segment, thus blocking its escape.

Etiology. As a general proposition it may be said that anything which interferes with the complete filling of the lower uterine segment, by the presenting part, predisposes to this condition.

Among the individual factors that confront us are *Multiparity.* The proportion of primiparae to multiparae as given by Hildebrandt is 15:85 Scanzomi found it 24,2 : 75,8; Cuntz 37:63, and Gusserrow 3807:6193, a predominance of the multiparae in the proportion of two to six. This is accounted for by the lax abdominal wall, by the weaker uterine muscle, especially in oft repeated pregnancies, and by the greater amount of free space in the uterine cavity, predisposing to malpresentations and prolapse.

Contracted pelvis. In one hundred and twenty-six cases of prolapse of the funis Hildebrandt found it thirty-nine times, about

thirty-three per cent. V. Winckel states this cause to account for about forty per cent of his cases, while Gusserrow's experience has been about thirty-seven per cent. The reason is readily understood when we consider the space between the nonengaged head, situated above the pelvic brim, and the pelvic wall, allowing the cord to slip by it, through an os dilated only by the membranes. This is especially true in the cases where the antero-posterior diameter is shortened, as in the flat rachitic pelvis.

It is said that, given a primipara with head presentation and chorda previa, pelvic contraction is almost certain. Gluskin proves this statement from Gusserrow's experience as follows: of all cases with head presentation and prolapse 47.5% had contracted pelvis. Out of forty-five primiparae with head presentation and prolapse thirty had contracted pelvis, giving it a percentage of 66.07.

Hildebrandt attempts to prove that in the presence of contracted pelvis, prolapse is much more frequent among multiparae than among primiparae. He quotes:—

Hecker	28 cases,	25 multiparae	89.29%.
Scanzoni	33 cases,	25 "	75.76%.
Elsaesser	41 cases,	32 "	78.75%.
His own	17 cases,	15 "	88.24%.

Gluskin, however, from Gusserrow's clinic, found seventy-three cases with thirty-nine multiparae, 53.42%.

As against the frequency of this complication in multiparae without contraction which was 61%. Hildebrandt accounts for this predominance in multiparae by the greater deformity of the uterus, thus preventing the presenting part from lying directly over the inlet. Myomata and ovarian tumors, if found in the true pelvis, interfere with engagement of the head, the same as contracted pelvis. If in the false pelvis, by carrying the uterus to one side, they predispose to malpresentation and in this way to funis prolapse. About six per cent of all cases of chorda previa are due to this complication.

Twins. The small size of the children and the greater amount of free space in the uterine cavity, predispose to malpresentation and prolapse. The general frequency of twins as given by Plass and Gusserrow is 1:80 and 1:71 respectively, while the findings of four cases by Scanzoni is one hundred and three cases of funic prolapse and six by Gluskia in one hundred and ninety-seven would establish a proportion of 1:26 and 1:33 respectively.

Hydramnios interferes with engagement by lifting the presenting part high above the pelvic brim. A single pain may rupture the membranes and with the escape of the amniotic fluid, may come the

prolapsed cord. In thirty-six cases of funic prolapse Scanzoni found hydramnies fourteen times, a little over thirty-eight per cent., while Hugenberger found it in only fourteen of his cases. The difference is explained by the different interpretation of the findings by the different observers.

Abnormal length of the Cord. Any cord is long enough to be prolapsed, but the abnormally long cord is especially susceptible. The average cord measures fifty c. m., while in cases of prolapse Hecker found the average length in head presentation to be 71 c. m. and in transverse cases 66 c. m.

Low insertion of the Placenta and Placenta Previa. Zeller von Zellenburg, later Naegele Sr. and Jr., first called attention to this condition as a cause of chorda previa. The lowly situated placenta or the marginal one, interferes with engagement and later rotation. A space is left between the fetal head and the lower uterine segment. At the first opportunity the cord prolapses; besides, its proximity to the os would naturally predispose it to prolapse. Hecker, assuming that centrally torn membranes meant fundal attachment and lateral tears represented placenta lowly situated, found such lateral tears in twenty-three out of twenty-eight cases. In ten cases of prolapse Hildebrandt found low insertion five times, while Gluskin in reporting twenty-two cases from Gusserrow's clinic noted placenta previa three times and low insertion once.

Among the less important causes may be mentioned velamentous insertion of the cord, delivery in the semirecumbent or erect posture, and others.

But by far the most important of all causes is malposition, all the previously mentioned factors merely predisposing to malpositions and presentations, thus interfering with the complete filling of the lower uterine segment by the presenting part.

Among the different malpresentations *transverse* presentations head the list. V. Winckel states that transverse cases, associated with prolapse, are twenty to twenty-eight times as frequent, and breech nine to ten times as frequent as head presentations.

The experience of the different clinics for the different presentations associated with funic prolapse compiled by Gluskin is as follows:

Cuntz	head	1.01%	Breech	5.51%	Transverse	12.2 %
Scanzoni	"	0.35%	"	4.37%	"	7.28%
Hecker	"	0.68%	"	9.09%	"	5.81%
Gusserow	"	0.76%	"	5.81%	"	14.29%

The predominance of transverse cases is explained by the fact,

that the lower uterine segment is dilated by the amniotic fluid alone, and a sudden rupture of the membranes inevitably causes prolapse of the cord especially if the fetal abdomen be directly anteriorly. Another reason is that frequent prolapse of the small parts causes rupture of the membranes prematurely.

That breech presentations should follow next in the order of frequency is self evident. The soft breech cannot conform to the lower uterine segment as closely as the head. A free space is responsible for the prolapse.

Rarest of all it occurs among head presentations. In one hundred and ninety-seven cases Gluskin found it with Head 120 times; Breech nine times; Foot 42 times and Transverse 26 times.

These figures might look contradictory at first glance, but when we consider the total number of head presentations to those complicated by funic prolapse we find the following:

120 heads	with funic prolapse	to	15,873	total head	1.32	or 0.76%
9 breech	" " "	"	572	" breech	1:57	" 1.76%
42 foot	" " "	"	366	" foot	1:9	" 11.48%
26 transverse	" " "	"	187	" Trans.	1:7	" 14.29%

Among head presentations it is said to be more frequent among R. O. P. than among L. O. A.

Finally the question arises with different authorities whether accompanying prolapse of small parts is to be figured as a cause or a result of the same cause which brought about the funic prolapse. If we accept the normal location of the funis as described, prolapse of an arm would naturally release it from its artificial groove and thus predispose it to prolapse. However, in a given case of pelvic contraction or transverse presentation from other causes, prolapse of the cord could be attributed to the same cause that was responsible for the arm prolapse.

While all these different factors may be responsible in different cases, the experience of Michaelis, Winckel and Hildebrandt has been that in any given case more than one factor was found in operation.

Frequency. It is given as one per cent. by Michaelis, Winckel, and Engelman, but that this is far from correct the experience of different observers prove, as follows:

Kastner	2,000 cases		20 times
Lindsay	5845 cases		13 times
Winckel from	1-65 to 1-500		
Churchill	1-245	Bland	1-1897
Christsen	1- 65	La Chapelle	1-388
Mechaehem	1- 93	Jacquerier	1-170

The number of cases in my estimation which one will encounter in practice, would naturally depend upon the class of people among whom one is practicing. The figures already given have proven that it is far more frequent among multiparae, who give birth to children often. In this community the Poles with their extraordinary fecundity, and those foreigners coming from such parts of Europe where contracted pelves are common, contribute most of the cases.

Morbid Anatomy. Through the compression, the interchange of gases between the mother and child is lessened. The lack of oxygen, or according to others the accumulation of C.O.$_2$ stimulates the fetal respiratory center. Attempts at respiration are made and the bronchi become filled with the amniotic fluid and meconium, the spincter having become relaxed. Owing to the respiratory attempts, the pressure in the lung becomes negative. The greater part of the blood is now directed to the pulmonary artery, instead of to the ductus arteriosus as under normal circumstances. The fetus now suffers doubly. The blood is not properly aerated in the lungs and the amount of the blood going to the placenta is further lessened by the cut off at the Ductus Botalli. Consequently asphyxia occurs with hemorrhages in the pulmonary artery, epicardium, thymus, thyroid and meninges. The bronchi are filled with meconium and amniotic fluid, besides all of which the autopsy often shows injuries to the child resulting from the particular mode of delivery.

Symptoms and Diagnosis. This complication shows symptoms only when the cord is pressed upon, and these pressure symptoms become all the more marked when the presenting part is hard like the fetal head. Owing to the disturbance in the fetal circulation from such compression, the fetal heart tones become muffled, fall in frequency during compression (pains) and reach a much higher rate than normal during the painless interval.

V. Winckel noticed a difference of over one hundred beats between the time of compression and relaxation. The funic souffle being a symptom of umbilical vessel stenosis, is distinctly heard when looked for. The diagnosis is easy when one sees the funis prolapsed at the vulva, or when one feels a coiled, soft, or—during pains—hard, smooth, pulsating body in the vagina. But when the presenting part is high and the cord is barely palpable the diagnosis may be difficult. Under such circumstances, one may try to palpate the supposed cord between two fingers rather than press the organ against the presenting part or pelvic wall, and if pulsations are perceptible, the diagnosis is certain. One will hardly mistake such cord even if pulseless for a

coil of bowel as once reported, nor will pulsation in the vicinity of palpation mislead one, for the maternal pulse differs both in frequency and in character from the fetal.

A presenting cord through intact membranes may be mistaken for small parts, and is in fact often so mistaken by midwives, but on careful examination the difference will be appreciated. It is of much less importance to make a diagnosis, than it is to make it early, for a timely intervention before the fetus has suffered too much will often save a life. The things to be guided by, especially in cases where there is pelvic contraction or where there is a history of such complication in previous labors, are not the number of vaginal examinations, for the cord might prolapse between such examinations, but by watching the fetal heart tones, and at the first indication of irregularity or of abnormal fetal movements, (the accumulation of $C.O._2$ in the fetal blood stimulates its respiratory center and attempts at respiration are made) the diagnosis should be verified by vaginal examination and the condition treated accordingly.

With complete obstruction of the circulation in the cord, it becomes pulseless, but the fetal heart may go on beating for ten minutes. This should teach us that a lively beating cord does not always mean a healthy baby nor a pulseless one a dead child.

Prognosis. The mother runs little additional risk from such complication. The complications to be feared are premature separation of the normally situated placenta, the driving forward of the cord by the descent of the presenting part, and the liability to infection from the increased number of vaginal examinations and the necessary obstetric operation. But if much can be promised for the mother, much less can be promised for the child, for it is one of the greatest calamities that can befall the unborn infant. Of late years the improved technic has materially lessened the fetal death rate, but it is still high enough to be dreaded.

Scanzoni having compiled seven hundred and forty-eight cases from the experience of Churchill, Mauriceau, Collins, De la Motte and La Chapelle, has found four hundred and eight deaths, a mortality of fifty-five per cent. Porsehjanikow, among 33,143 births, found in prolapse of the cord the mortality to be fifty-three per cent. Reuter claims a gross mortality of forty-three per cent., but dividing the cases in the period prior to 1860 he found that to be 46.8%, and after that time to have dropped to 33.9%. The later cases of Greaser, Elsaener, Crede, Hecker and C. Braum, in all two hundred and twenty-five cases with one hundred and nine deaths, still shows a mortality of

forty-eight per cent., while Gusserrows one hundred and ninety-seven cases with eighty-two deaths ranges near forty-one per cent. These figures show that the mortality is still high enough to deserve attention. In any individual case the following data will influence the prognosis:

Multiparity. That the death rate should be higher in primiparae, where the soft parts would not allow of a hasty delivery, is self evident. In Gusserrow's clinic sixty-eight primiparae lost forty-two children, a mortality of 66.71%, while the mortality among the children of multiparae was 28.5% (112 cases 32 fetal deaths). The number of previous pregnancies and whether the lower birth canal is obstructed or not would certainly influence the prognosis.

Contracted Pelvis. It is self-evident that this complication interferes with speedy delivery, and the life of the fetus when symptoms develop is greatly endangered.

The figures for the mortality in different positions with or without contraction of the pelvis are interesting. Figures compiled by Gluskin.

Head normal pelvis.....30.16%		Contracted pelvis 50.88%	
	Funic prolapse mortality		Funic prolapse mortality
Breech	" 25%		" 100%
Foot	" 44.44%		" 50%
Transverse	" 36.29%		" 50.68%

It is evident that contracted pelvis, in the presence of funic prolapse, brings the fetal mortality up to 50%, while the fetal mortality in contracted pelvis without funic prolapse is given as 44%.

Sex.

Out of 80 boys 39 died, mortality 48.75%.
Out of 53 girls 19 died, mortality 35.85%.

The difference depends upon the greater size of the male head.

Position. The particular position the fetus assumes in utero in any particular case bears a direct relation to the prognosis. In one case a hard head compresses the cord, in another a soft breech. Figures show that the head is the most unfavorable of presentations, next comes the breech, and lastly transverse cases, for in the latter, there is no compression at all, but when we consider the possibly hasty delivery in one and the necessary version in the other with a probable difficult extraction of the after-coming head, the transverse cases become least favorable. The mortality in Gusserrow's 18,013 cases for the different positions in normal cases and those associated with funic prolapse, is as follows:

General fetal mortality.....	Head	7.13%	With funic prolapse				40%
" " "	Breech	28.32%	"	"	"		33.33%
" " "	Foot	46.68%	"	"	"		45.24%
" " " .	Transverse	51.34%	"	"	"		46.15%

The predominance of five per cent. in uncomplicated transverse cases over those with funic prolapse is a mere coincidence.

The high death rate in head presentation associated with chorda previa is explained by:

1. The hardness of the fetal head.

2. The better filling of the lower uterine segment making compression more likely.

3. The greater frequency of contracted pelvis in head presentation as Gluskin proves:

Gusserrow's seventy-three cases with contracted pelvis.

Head	57 cases.	Per cent.		47.5
Breech	1 "	"	"	11.11
Foot	7 "	"	"	14.29
Transverse	8 "	"	"	30.77

Besides multiparity, contracted pelvis, sex and position, the amount of injury to the child plays an important role in the prognosis. Fractures of the clavicle, humerus, femur and other bones have been reported, and where forceps are applied, meningeal hemorrhages have been found.

Treatment. The best treatment is preventive in this complication. If the cord is found presenting through intact membranes and the os still small, the indications are (1) to prevent the rupture of the membranes, and (2) to so place the cord away from the os that when rupture does occur it will not prolapse.

Reposition through intact membranes with an undilated os is dangerous, on account of the liability to rupture of the membranes. Besides, the attempt is often unsuccessful. The first indication can be fulfilled by keeping the woman in the recumbent posture. Under such treatment the pains become weaker and farther apart. The second indication is a little harder to fulfill, but attempts although not successful in every case, still unquestionably are valuable. I refer to keeping the head and upper trunk low and the pelvis elevated. The knee-chest position, and in hospitals the Trendelenburg are used. In private practice lay the patient on one side with pillows under the pelvis and the head low. The rationale of this is that by the position assumed the presenting part is lifted high above the os, there is diminished pressure of the amniotic fluid, and the danger of premature rupture is lessened. In this position the fundus uteri remains at a

lower level than the lower uterine segment, and the cord may follow the law of gravity and slip back into the uterine cavity. The intra-uterine tension and the labor pains, however, tend to counteract this desirable result. It is also recommended that the woman lie on the side opposite to that on which the cord is felt. If for instance the cord be felt on the left side, the engaging head will be found directed toward the right. The woman taking the right position, the fundus sinks towards the right, the lower uterine segment rises to the left, thus fitting better over the inlet. A pain might bring the head down and engage it, thus blocking the cord from prolapse. In other cases where the cord presents and the os is fully or nearly dilated, it is better treatment to rupture the membranes artificially and avoid a prolapse, than to wait for a spontaneous rupture, where a large rent and a rapid discharge of the fluid will surely carry the cord with it. Artificial rupture high up between the presenting part and the uterine wall is not recommended, for even a slow discharge of waters is useless, if you cannot at the same time fix the presenting part. In longitudinal presentations with a normal pelvis and plenty of strong and continuous labor pains, rupture as quick as dilatation will assure a speedy delivery. If complications exist, turn and bring down a foot, for the mortality in footlings with funic prolapse is not greater than under such presentation without the complication.

The treatment of this complication when the cord is found in the vagina has varied from reposition of the prolapsed organ, first recommended by Louis Burgeois in the sixteenth century, to podalic version, first performed by Mauriceau, after he was convinced of the uselessness of the former operation. In the seventeenth century, and in later years De la Matte, Deventer, Smellie and Levret, all taught version, as the operation of election; forceps to be applied only to a deeply situated head. Then came an era of general therapeutic, nihilism and Badeloque questioned the advisability of interfering in every case. Baer did not interfere at all, until the cord became pulseless—a mode of treatment, now considered absurd. Then the pendulum swung back again and reposition was urged by Michaelis and he based his teachings on the good results he had with it. He attributed the previous high mortality to faulty technic and untimely intervention. He considered reposition more difficult the larger the os. He thought reposition the only life saving means in cases where the cord becomes pulseless. Reposition was then considered the operation of election by all his followers, namely Trefurt, Negele, E. Martin, Oredi, Scanzoni and Hildebrandt. In cases where introduction of the

hand into the uterus to replace the prolapsed cord was impossible, Braun, Martin, Zweifel, Murphy, Robertson, Michaelis and others inserted instruments called repositors, by which the cord could be replaced through a small os.

These instruments consist of a tape swung around the cord and carried by means of a hollow catheter. Some were intended to be left in the uterus to be expelled during the third stage, and others to be unhooked as soon as the cord was placed around a fetal extremity. The lack of success with this method was due to injuries to the cord and uterine wall and to infection of the mother in the preantiseptic era. Reuter collected statistics of 1,653 cases of prolapse of the cord treated by the different methods in vogue, prior to 1860 and since that year.

Prior to 1860.

Version	143 times	93 dead children	mortality	65%
Reposition	478 "	137 " "	"	32.8%
Forceps	180 "	113 " "	"	62.8%

Since 1860.

Version	340 times	93 dead children	mortality	28%
Reposition	247 "	102 " "	"	41%
Forceps	98 "	39 " "	"	39.8%

The modern belief is that it is better to terminate labor quickly and deliver a living child than to procrastinate and deal with a recurrence of the prolapse.

As the object in view is to bring into the world a living infant, so it may be said that death of the fetus offers no indication of speedy delivery on account of the prolapse, but interference may be necessary on account of contracted pelvis, malpresentation or placenta previa. However, death of the fetus should not be diagnosed from a pulseless cord. The fetal heart tones must be continuously absent, for a fetal heart may go on beating for ten minutes after the cord has become pulseless.

The following method of procedure is recommended in individual cases:

In absence of signs of compression, transverse presentation, dilatation not complete: Wait for sufficient dilatation, watch heart tones regularly and when considered sufficient, turn and extract immediately. If compression occurs during this period, turn, replace the cord, bring down one foot and do not extract until dilatation is complete. The reposition should be done after the version. When the breech is brought over the inlet, replace the cord and engage the breech thus blocking its way. Reposition as the operation of election is useless, for the prolapse will recur.

In cases where dilatation is complete turn and extract immediately.

In absence of compression, pelvic presentation, dilated os: extract immediately.

Partly dilated: bring down foot and delay extraction until such time as deemed advisable. If breech is not engaged replace cord first and then engage.

In absence of compression, head presentation: Forceps are to be thought of only when the head is deeply engaged and conditions are favorable for a speedy delivery.

If still unengaged, version and bringing down one foot gives better results.

Stricker, in cases of movable head, advises reposition, but individual cases vary in their indications.

Reposition is successful only when the proper technic is observed. Fritsch says as follows:

(1.) In cases where no anesthetic is used the operation should be done in the knee-chest position. In cases where anesthesia is used, elevation of the pelvis is essential. (Webster uses the Trendelenburg).

(2.) The whole hand must be in the vagina.

(3.) The prolapsed organ should not be replaced piecemeal but *en bloc.* The organ is grasped in the palm of the hand and carried above the greatest circumference of the head.

(4.) The replacement should be done rapidly so the cord suffers least.

(5.) The hand is not withdrawn through the same side as introduced, but should first circumduct the presenting part and be withdrawn through the opposite side, so the cord does not follow it.

(6.) The woman is placed on the opposite side of the prolapse in order to help to engage the head; further engagement may be brought about by fundal pressure. Binder and pillows help to straighten an oblique uterus.

(7.) The fetal heart tones should be listened to frequently, frequent vaginal examinations are permissible (after replacement) but care is necessary not to bring on another prolapse.

Schrader recommends manual reposition, but the hand should not be withdrawn until the head is engaged by fundal pressure from the other hand, the uterine hand helping to guide the head into the inlet.

Henne treated a case that recurred after an ordinary reposition, by enveloping the prolapsed organ in a sterile towel, rung out in a

1% lysol solution, and carrying up high into the uterine cavity, to be left there and discharged during the third stage. The operation was successful.

If reposition fails it should not be repeated but podalic version performed instead.

In the presence of such complication as prolapse of small parts, version without any attempts at reposition is the mode of procedure recommended.

In head presentations with a very small os therapeutics is of little avail. Reposition may be attempted, but it seldom succeeds, for it is impossible to replace a large coil through a small opening. If compression symptoms are absent, the colpeurynter or the tamponade may be made use of. In any case something should be done, for the mortality in expectant treatment is by far greater than any operation advised.

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PROFESSIONAL FELLOWSHIP.*

BY FRANK W. EPLEY, M. D.,

NEW RICHMOND, WIS.

The keynote to this most desirable condition of things, is proper consideration for the Other Fellow. That Other Fellow has feelings, and they are just as easily injured as our own. In every situation and every walk of life, it is the proper consideration for the Other Fellow that makes life enjoyable, or, it may be, even tolerable.

The arch enemy of all fellowship is selfishness—a self interest which dominates and predominates over all the finer feelings of our nature. No fellowship can be enjoyed until self interest is well and completely under subjection.

When one physician accepts an invitation to consult with another,

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*Read before the St. Croix County Medical Society, March 19, 1907.

he assumes one of the most important and delicate of all tasks. If he would perform the task with credit to himself, and in the spirit that actuates true manhood, he must be *strictly honest*: honest with the patient, honest with the Other Fellow, and lastly, honest with his own inner consciousness.

There are three interests at stake: First, that of the patient; second, that of the attending physician, and third, that of the consulting physician. There can be no denying the fact that the interest of the patient is, and must be paramount; that of the other two come in the order named.

The first duty of the consulting physician is to be promptly on time at the appointed time and place. The most important duty is the careful, thorough study of the patient. His most delicate task is to do full justice to the patient without in the *least degree* lessening the full confidence of the patient and his friends in the attending physician.

This is most important from every standpoint, and unless it can be accomplished only harm is likely to be the result of the consultation. If the prestige of the attending physician is overthrown, even common coarse ethics will prevent the consultant from assuming charge, and the patient is left stranded, without confidence, without hope, and the attending physician discouraged and disheartened.

Now, after over thirty years upon the tempest-tossed sea of medicine and surgery, I find myself forced to this somewhat pessimistic conclusion, namely: that three out of every four consultations, when conducted between physicians in actual competition, do more harm than good. The cause of this dismal result is dishonesty, and self interest as applied to both consulting and attending physicians. "'Tis true, 'tis pity, pity 'tis 'tis true."

The consulting physician may not say one single word, and yet his looks and acts may be so loud as to just as effectualy knock down and drag out the confidence of the patient and his friends in the physician in charge as if he had shouted, "Ignorance and incapacity."

It is always safe to concede, if we are honest with ourselves, that even that Other Fellow, while he may not be as well educated as we are, *may* have a whole lot of good common horse sense, sound judgment and tact; and many times one is just as good as the other if not a little better. Then, too, the attending physician has had a preparatory course of training in the case under consideration, which has been denied the consultant. It will be conceded that individual characteristics, environment and the clinical history, all an open book to the attending or family physician, present a clinical picture widely dif-

ferent from that presented to the consultant, no matter how well he may be equipped.

The real true value of a consultation from a practical standpoint, is really a questionable quantity: not because it is untrue that "in the multitude of council there is wisdom," as a rule, but as applied to the treatment of disease it *is* at least questionable. There are so many and such a variety of factors entering into diagnosis and treatment, that in almost every case, the introduction of a new and uninitiated factor throws the whole fabric into a condition of chaos. Certainly this is true, unless the consulting physician displays the most consummate skill and tact in his every word, act and look.

Do not misunderstand me. I would not go on record as opposed to consultations under proper conditions. And those conditions are as follows:

The consultation *should* be sought by the attending physician and his wishes and judgment respected in the choice of consultants.

The physicians must be honest in the strictest sense of the term, and each must be charitable. Because, if good is to come to the patient it must come through the agency of the attending physician, and he must therefore be in full sympathy with the treatment. If he is not, if it is against his judgment, he either becomes a passive factor in the case, without heart and with waning interest, or he will be dishonest and fail to give the treatment advised a fair trial. There must exist between the consulting parties a feeling of confidence or professional fellowship if the patient is to be benefitted.

Professional fellowship, then, is absolutely indispensible in the association of two or more physicians in the treatment of every case. It is also a most desirable element in the fabric of society, and I know of no more potent force for good in any community than the existence of a hearty good fellowship among the medical profession.

To successfully bring this about there must be intimate social relations existing between the members of the profession. They should meet frequently and in the most friendly manner talk over cases of mutual interest, freely discussing matters of diagnosis and treatment. But will they do it? No! As a class medical men are not built that way. They prefer to be suspicious, and to believe all the trash they hear from their "fool friends about town" about the Other Fellow, and what he has said and done. The most prolific source of backbiting, dissension and discord among physicians is the wanton and oftimes malicious gossip of the laity, and if they could realize it, they are themselves the chief sufferers.

They believe it quite within their province to question, to criti-

cise, and even ridicule the acts of the attending physician, if by so doing they may possibly poison the minds of the patient and his friends and get them dissatisfied with the efforts of the attending physician, thereby furnishing them an opportunity to push their favorite doctor into the case. And in order to do this they do not hesitate to put words into *his* mouth which he never thought of, and they do it with impunity.

Emergency calls are often taken advantage of by a grasping spirit to ingratiate himself into the good graces of the family, and by various methods, which, if exposed would put to shame an honest man, seek to displace the family physician and seat himself in his stead. He will often make frequent friendly calls after the emergency visit, excusing himself with the remark: "I was anxious to know how you were getting along, so thought I would just drop in." To this remark should be added its proper interpretation, which is, "Just drop into your family physician's place if possible."

When a physician is called into a case in the absence of the attending physician, knowing it to be an emergency call, he should, if he cares to foster professional fellowship, put himself in the Other Fellow's place and govern himself accordingly.

The young physician sometimes thinks that the code of ethics is unnecessarily severe upon him. I remember having felt, when I belonged to that class, that the old fellows made the code largely to protect themselves against the inroads of the up-to-date young doctor. He feels that the code makes it very difficult for him to obtain a foothold. However, a careful survey of the field will, I am sure, convince him that the spirit of the age will push him ahead fully as fast as he is prepared to accept all the responsibilities attending his work.

There should be the closest friendly relations between the old and the young in our profession for each will be mutually and equally benefitted thereby. The old doctor will be able to gain many new points in up-to-date methods which he can very readily grasp and assimilate, and the younger man may avail himself of the practical methods which have stood the test of years.

Not all the new methods are the best ones, often the pendulum of progress swings too far and brings with it impractical and unnecessarily cumbersome methods and details, which time and experience will very greatly simplify without in any way robbing progress of its general beneficient effect, in fact make it stronger for good. For example, who would think now of practicing the cumbersome details of Listerian surgery as it was originally given to us by the father of antiseptic surgery?

Nothing is to be lost and everything to be gained by a close and frequent interchange of professional thought and experience among the fraternity in any community. Here is where the seeds of true Medical Fraternalism are sown, and either spring up and grow and yield rich fruit to the great good of suffering humanity, or are trampled upon and smothered by the monsters, Self Interest and Jealousy.

"And now abideth Faith, Hope, Charity, these three; but the greatest of these is Charity." Charity should always come first. Charity between physicians promotes a proper regard for the Other Fellow's interests. Charity between patient and doctor brings a proper consideration for the anxiety of the patient and his friends and a due appreciation by them of the efforts of the physician in charge upon whom the weight of responsibility falls most heavily.

Charity promotes Faith, and Faith brings Hope. These three may win a battle which would be lost without Charity and a proper and just, *only just* consideration of the Other Fellow.

BREECH.*

BY G. A. HIPKE, M. D.,

MILWAUKEE.

At a recent meeting of this society, a number of physicians criticised essayists who read papers in which nothing new or original is brought forth. To such physicians I wish to apologize. I have nothing new or original to offer. The object of this article is to present for your consideration the importance of certain measures which are mentioned only in a casual way in some of our text-books, omitted in others, and condemned by a third class.

In taking up this subject we shall not differentiate between a foot and a knee, nor between a pelvic and a breech presentation, but for practical reasons the entire subject will be considered under the general term of breech presentation; realizing, however, that the prognosis for the child and mother is more favorable in a full breech than in a foot presentation.

Before taking up the prognosis and treatment of these cases, it will be well for us to briefly consider the frequency of breech presentations and the diagnosis of the same.

FREQUENCY:—According to the most reliable statistics obtain-

*Read before the Milwaukee Medical Society, Feb. 26, 1907.

able, we meet with this condition in three per cent of all obstetrical cases, Jewett being the only authority who estimates its occurrence as less frequent, namely two per cent, while Hirst, Dorland, Edgar, Williams, Winckel, Ohlshausen and others meet with it in three to four per cent. of all cases; or, in other words, we are called upon to treat this condition in about one out of every twenty-five to thirty cases.

DIAGNOSIS:—The diagnosis can almost invariably be made by abdominal palpation and auscultation. The fetal head can be demonstrated at the fundus of the uterus, and the breech of the child at the lower uterine pole. The fetal heart sound is heard above the umbilicus to either one or the other side of the median line. Engagement of the buttocks in breech cases, at full term, does not take place before the beginning of labor. Ballottement of the fetal head in the upper uterine pole can be very readily performed, in fact it is with the head in this position that ideal external ballottement can be performed.

By the vaginal route nothing positive can, as a rule, be made out, the findings being rather of a negative nature.

Again, it can be demonstrated that engagement does not take place before the beginning of labor, in consequence of which we find the vault of the vagina flat and high up. The presenting part is likewise high up and palpable only with difficulty. Later, when the cervix has dilated and engagement and descent have taken place, we will be able to make out the characteristics of the breech. It is, however, always well for us to keep in mind that, where complete reliance is placed upon the vaginal method of examination, many a face presentation will be diagnosed as breech, and vice versa.

PROGNOSIS:—Williams states that the maternal mortality rate is not materially affected by breech cases in which spontaneous delivery takes place, but that perineal lacerations are more extensive and more frequently met with in spontaneous breech cases than in vertex cases. He also states that artificial delivery is more frequently necessary in this condition than in vertex presentations, whereby the danger of infection of the mother is increased. Authorities such as Winckel, Edgar, De Lee and others, hold out a similar prognosis to the mother as does Williams. In fact, we are left under the impression that the maternal mortality rate in breech cases is no higher than that of vertex cases although the maternal morbidity is very much higher. Personally, I cannot help but believe that, if we acknowledge that the immediate death rate is no higher in breech cases than in vertex presentations, we must also acknowledge that the remote death rate must, of

necessity, be higher. If infection is more frequent in one case than in the other, it follows that the death rate will be proportionately higher.

The fetal mortality rate is variously estimated by different authorities as ranging from 10 to 26 per cent, while the fetal mortality rate in anterior vertex cases is given as less than five per cent.

Hirst gives the fetal death rate in breech cases as thirty per cent, Dorland nine to thirty per cent, and Jewett one to ten per cent.

These statistics, if they prove anything, prove their unreliability. When such men as Williams and Jewett give the fetal death rate as ranging from one to ten per cent while equally good men, such as Edgar and Winckel, give it as ranging from fifteen to twenty-six per cent we are left very much in doubt. The majority of physicians, however, agree that in breech presentations we are frequently forced to deliver artificially and by so doing we meet with frequent and extensive perineal lacerations followed by puerperal infection in not a small number of cases. Again, though obstetricians differ as to the actual fetal mortality rate in these cases when the presentation is not changed by version, it is generally agreed that it is far in excess (about twenty per cent) of the fetal death rate in favorable vertex cases, which is about five per cent.

Therefore, with an acknowledged increase of maternal and fetal morbidity in breech cases over that of favorable vertex cases, together with a much higher fetal mortality rate in the former than in the latter, does any reason exist why, when we meet with a breech presentation in practice, an attempt should not be made to change it to a more favorable vertex presentation by a method which is attended with little or no danger to either mother or child?

TREATMENT:—In obstetrics we seldom refer to any but the curative treatment. The prophylactic measures are very frequently neglected and this is especially true in the treatment of breech cases. In presenting this phase of the subject, all of our time will be taken up in discussing the prophylactic treatment, because the so-called curative treatment is well established and outlined in all text books of obstetrics. The prophylactic treatment is not so well defined and agreed upon—and further, it is our belief that it should receive the closest attention of all who are interested in this field of work. In all breech cases at or near full term, the physician in charge should not be satisfied with only the diagnosis before labor begins but he should also consider whether the life of the mother and child are enhanced by allowing it to remain as such or whether the outlook is improved by changing it to a more favorable vertex presentation. Winckel says that a breech shall be delivered as a breech case and that he does not

favor changing it to a more favorable cephalic presentation. He mentions cephalic version in these cases as a prophylactic measure only to condemn it. He takes this stand because he considers these cases normal. It seems incredible to believe that Winckel should object to interference in a breech presentation because he considers this presentation normal. You will remember that Winckel finds that the fetal death rate in well attended breech deliveries is very high. In spite of this fact, he condemns the practice of changing this presentation to a more favorable one by a method which does no harm to either mother or child. Davis, Jewett and Ohlshausen do not mention external cephalic version as a prophylactic measure in breech presentation. Lusk, Dorland, Hirst and others make mention of this mode of treatment only in a casual way, while Williams and Edgar of this country and several well known obstetricians of England speak very favorably of the method.

The writer is of the opinion that, because of the high fetal mortality rate and the high maternal and fetal morbidity, most cases of breech presentation at or near term should be changed to a vertex case prior to or at the very beginning of labor by external cephalic version if expedient. The only exceptions being in a very large roomy pelvis and in some cases of pelvic contractions. If unsuccessful in bringing about this change by external cephalic version, recourse may be had to the combined method of cephalic version.

The most appropriate time to perform the external cephalic version is previous to the beginning of labor, in the latter part of pregnancy.

If it were possible for us to foretell with any degree of certainty the time of the beginning of labor and if the patient were so placed that she would be within easy and immediate reach of the physician, then the time for the performance of external cephalic version would be at the very beginning of labor.

However, we know from practical experience that obstetricians are but poor prognosticators when it comes to foretell the probable date of labor; and, again, even with the patient in a hospital, the physician is not always so placed that he can answer the call in time, that is before the breech has been forced to engage in the brim of the pelvis. After engagement has taken place, cephalic version by the external method is out of the question but if fixation has not yet taken place, cephalic version may be attempted by the combined method.

Because of the fact that we cannot foretell the date of labor and again, because after labor has begun the physician often cannot reach

the patient in time to be able to perform external cephalic version, the time chosen for this prophylactic treatment is some time during the last ten or twelve days of pregnancy. We find, however, in these cases that after the performance of cephalic version, a return to the former position is liable to take place. To avoid this, the head is at times forced to engage, after version has been performed, by suprapubic pressure, or the fetus is held in place by having a pad on each side of the uterus, retained by a well fitting binder with the patient quiet, and in recumbent position most of the time. Edgar cites a case from his practice where with his hands he held the head in place at the brim of the pelvis for three hours, or until engagement had taken place.

CONTRAINDICATIONS:—(1) Cephalic version is contraindicated where rapid delivery is mandatory; (2) at full term when decided flattening of the pelvis exists; and (3) in all cases of early premature labors.

PREREQUISITES:—(1) An absolute diagnosis of the fetal position; (2) intact membranes; (3) a moderate amount of liquor amnii; (4) normal mobility of the fetus; (5) relaxed abdominal and uterine muscles, and (6) a general anesthetic probably in the majority of cases.

PROGNOSIS:—As far as I have been able to ascertain no ill effect has been produced by this method of version, but it will be acknowledged that harm may be done if we lose sight of the above contraindications and prerequisites. The good accomplished by this method of treatment has been fully discussed and therefore needs no further consideration.

Before taking up the technique of the operation, I wish for a moment to digress from the subject proper for which I hope I will not be too severely censured.

One of the objections invariably offered to progressive obstetrics is, that the physician can not afford to give the obstetrical patients the desired time, and anticipating that this point will be raised this evening, I venture to make the following remarks: "The remuneration is not sufficient," or "I seldom see my obstetrical cases prior to the beginning of labor," and similar assertions are offered in criticism to advanced obstetrics, but they are no objections in reality.

We realize that obstetrical work is underpaid, but we likewise realize that the medical profession is to blame for this condition of affairs. So long as physicians neglect to give the best of care to patients previous to labor, so long as physicians neglect to make ante-partum examinations and diagnosis, so long as physicians are satisfied to say

that most cases are normal and that all will end well, so long as physicians will continue to practice obstetrics as midwives do, just so long will we be paid and ought we to be paid as midwives are. The only way for us to advance obstetrical prices is for us to become students of obstetrics, to become imbued with the importance of the subject and to impress its importance upon our patrons rather than to leave the prospective mother under the impression that kind nature will attend to her.

It is not at all uncommon to have physicians tell us that they "hate" obstetrical work, and in spite of this fact they continue to attend obstetrical cases. How well is work done when it is distasteful?

I feel very strongly on this point and in consequence have digressed probably more than I should have, though much remains to be said.

TECHNIC:—The position to be taken by the patient has lately become a matter of doubt. It may, however, be stated that any position which the patient can assume and maintain during the operation which thoroughly relaxes the abdominal muscles and allows or aids the breech to fall away from the brim of the pelvis, is the preferable one. The usual position resorted to is the recumbent or dorsal with the hips slightly elevated and the thighs rotated outwards. This position has always been found the most comfortable one for the patient and in my limited experience of nine cases, it answered the purpose, with the exception of one case, when the Trendelenburg position effected the desired result. Most authorities speak of having the patient assume the genu pectoral position, and theoretically one may recommend it, but the clinician will scarcely ask the pregnant woman about to be confined to assume and maintain this position while he is trying to perform the version. If, however, he does obtain her consent he will hardly have to ask another patient.

The extreme lateral posture has lately received the attention of many physicians and the comments have naturally been quite favorable. It produces a [illegible] and uterine relaxation and at the same time allows the presenting part to fall away from the true pelvis.

The Trendelenburg position should be resorted to when the dorsal or the lateral positions have been tried and have failed. This position, [illegible] can be maintained by the patient [illegible] long enough to [illegible] pelvis.

[illegible] if necessary, the [illegible] deeply the fingers [illegible] grasping the

breech in the palm of this hand, while the other grasps the head at the fundus of the uterus. The former forces the breech upward, while the latter presses the head downward—now lifting the breech up, next pressing the head down, not always exerting the same amount of force at the different poles—continue in this manner and in some cases the version will be readily accomplished—in others it will take time and perseverance. In apparently all cases the version ends spontaneously when once the oblique position with the head lower than the breech, has been gained. Always turn the child with occiput first.

If manipulations excite uterine contractions, no further efforts should be made at version until the uterus again relaxes; however, we should maintain the ground gained by holding the parts through the abdominal wall.

When version has been completed, engagement may be forced to take place by suprapubic pressure, or the position may be maintained through the position of patient or by means of bandages.

In my experience I found that a return to the former position took place in only two out of the nine cases; one in which cephalic version was very easily performed, and the other in which it was accomplished with some difficulty. It may be mentioned that these were the only two cases in which the version was performed at my office. This may account for the return to the former position. Probably this spontaneous version would not have taken place if the patients had been advised to remain quiet and in bed for twenty-four hours. This was the only measure resorted to in the other seven cases. A brief history of my nine cases is appended hereto.

CASE 1.

May 12, 1903. Miss Bertha L. Oct. 23. Para 1. Pelvic measurements normal; health during pregnancy, normal; personal history negative.

DIAGNOSIS:—Pregnancy; presentation—breech; position L. S. I. R.

TREATMENT:—External cephalic version, anesthetic necessary because of rigid and firm abdominal walls. Patient took chloroform poorly. Position, dorsal; limbs slightly elevated and rotated outwards. Version easily accomplished. Patient was kept in bed for twenty-four hours following the version and a snug abdominal binder held in place pads to either side of the uterus. The patient removed binder during the night but fetus remained in place. Patient was confined one week later. Labor normal. Fourchette torn. Child alive and well. Puerperium normal.

CASE 2.

June 23, 1903. Mrs. Robert H. German, Para 1. Family and personal history negative. Health during pregnancy normal; nausea and vomiting during early months of pregnancy. Pelvic measurements normal.

DIAGNOSIS:—Pregnancy; presentation—breech; position R. S. I. A.

TREATMENT:—June 23, 1903. External cephalic version, no anesthesia. Patient in dorsal position, limbs slightly flexed and rotated outward. Version was readily accomplished in six minutes without complaint of pain on the part of the patient. The patient was placed in bed and remained there for twenty-four hours. A pad on both sides of the uterus was held in place by a firmly applied binder. This binder was kept on the patient for three days, when she entered labor, June 26, 1903. Labor spontaneous, sixteen hours' duration. Child alive and well. Puerperium normal.

CASE 3.

January 7, 1904. Mrs. Betty J. German-American. Para 1. Last menses April, 1903. Family and personal history negative. Pelvic measurements normal.

DIAGNOSIS:—Pregnancy; presentation—breech; position R. S. I. A.

TREATMENT:—Jan. 7, 1904. External cephalic version easily performed, without anesthesia; patient in dorsal position; thighs and legs slightly flexed and rotated outward. Retention binder applied as in other cases. Patient confined to bed for twenty-four hours, when she was allowed to move slowly. Feb. 14, labor ensued, ended spontaneously in seventeen hours, no laceration. Puerperium normal. Child alive and well.

CASE 4.

Nov. 17, 1904. Mrs. J., German, Para 2. Family and personal history negative. Pelvis normal. Former labor breech, child born dead.

DIAGNOSIS:—Pregnancy; presentation—breech.

TREATMENT:—External cephalic version performed without anesthesia, patient in dorsal position. Patient placed in bed for twenty-four hours. Retention binder applied. Labor ensued in eight days. Duration fifteen hours, spontaneous. Puerperium normal. Child alive and well.

CASE 5.

May 15, 1905. Mrs. J. Para 1. Family and personal history negative. Health during pregnancy good. Pelvis normal.

DIAGNOSIS:—Pregnancy; presentation—breech.

TREATMENT:—May 15, 1905. External cephalic version; anesthesia; Trendelenburg position. Duration twelve minutes. Patient returned to bed and kept there for twenty-four hours. Retention binder removed on third day because it became unbearable to patient. Labor ensued May 19, ended spontaneously in fourteen hours. Child alive and well. Puerperium normal.

CASE 6.

March 16, 1906. Mrs. H. Para 2. Came to my office about one month before labor ensued. Family and personal history negative. Previous delivery a normal cephalic delivery. She came to me saying she felt different than she had in her former pregnancy and that she wished me to examine her.

DIAGNOSIS:—Pregnancy; presentation—breech.

TREATMENT:—After informing the patient that a breech presen-

tation existed, she desired to have version performed, which was immediately done, a retention binder applied and the patient allowed to go home. The version was very easily performed. When labor ensued, about a month later, I understand that the breech again presented.

CASE 7.

June 7, 1906. Mrs. K. Para XII, Russian Jew. Former labors normal. Family and personal negative. Health during present pregnancy normal. Pendulous abdomen.

DIAGNOSIS:—Breech presentation.

TREATMENT:—June 7, 1906. External cephalic version, no anesthesia. Dorsal position. Operation about ten minutes. Patient kept in bed for twenty-four hours. Retention binder applied for two days. Labor June 15, 1906, spontaneous, five hours. Child well. Puerperium normal.

CASE 8.

Dec. 18, 1906. Mrs. D., 39 years. Primipara, German.

DIAGNOSIS:—Breech.

HISTORY:—Personal and family history negative. Health during pregnancy very good; came to office for diagnosis.

TREATMENT:—Dec. 18, 1906. At office; external cephalic version without anesthesia. Version was quite difficult. Abdominal walls tender and rigid. Duration about fifteen minutes; no retention. Binder applied and patient allowed to go home and admonished to call as soon as any signs of beginning labor become apparent. Dec. 23, 1906, patient in labor; did not see her until about ten hours after labor began and upon examination found the breech again presenting. Labor was allowed to continue and a spontaneous delivery hoped for. Interference, however, became necessary to deliver the after-coming head. The child was born alive and still well. The mother, however, sustained a deep perineal tear which was repaired. Puerperium—no temperature or signs of infection. Involution was slow.

CASE 9.

Jan. 6. 1907. Mrs. S., age 24, para 1, American.

DIAGNOSIS:—Pregnancy; presentation—breech presentation. History negative; pelvis normal.

TREATMENT:—Jan. 6, external cephalic version with anesthesia. Dorsal position. Duration about ten minutes. Patient kept in bed for twenty-four hours and retention binder applied for two days. The binder became unbearable. Jan. 22, 1907, labor ensued and ended spontaneously in ten hours; no laceration. Child alive and well. Puerperium normal.

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EDITORIAL COMMENT.

THE SIXTY-FIRST ANNUAL MEETING.

Twelve years ago, the State Medical Society, convened in annual session enjoyed an enthusiastic welcome at Superior.

It is admittedly one of the prerogatives of the members composing the State Society, that due recognition be accorded the various sections of the State whose physicians make annual pilgrimages to the seat of the convention. So, after this lapse of years, the cordial greeting extended by our professional brethren of Superior, was accepted.

Elsewhere in this issue there will be found much bearing upon the coming meeting. We would call attention to the report of Dr. C. H. Mason, chairman of the arrangement committee; to the preliminary program prepared by Dr. Ground, and to the illustrated write-up of Superior, by the City Comptroller, Wentzel.

We desire to call special attention to the provisions being made to care for the ladies. The report of Mrs. Conklin would indicate that the ladies are not only *invited* to come, but are *expected* to appear in generous numbers. And don't neglect to read the interesting things our secretary, brother Sheldon, has to say.

Inasmuch as there are so many sources heard from, all of which are interested in making it warm for visiting doctors, it is quite evident that the people of Superior are doing their utmost to outdo the efforts of those who have on previous occasions had the task on their hand of caring for the pleasures of several hundred out-of-town physicians. The task is no easy one, but it is a foregone conclusion that our welcome will be an enthusiastic one, and that we will meet with hospitable hosts.

We anticipate a reception that will compel us to pay our "party call" in less than twelve years from date.

TRANSPORTATION.

For the general information of those desiring to visit Superior and Duluth, we have prepared a statement (p. 115) covering the various transportation routes. In this statement we have endeavored to cover these routes as accurately as possible. We hold ourselves prepared and willing to give any information not covered by this report, to those who may desire such. Railroad routes are for obvious reasons scheduled at Milwaukee.

PROGRAM.

This year's program is sufficiently varied to satisfactorily cover the demands of the general practitioner and the specialist. The symposiums are a new departure for this society. There is every reason why this innovation should prove a good feature.

The reputation of those who are to present the principal addresses in medicine and surgery are such as to promise papers of exceptional excellence.

The preliminary program announcement, which was formerly mailed to all the members of the Society, will be omitted this year because of its expense. In its stead the JOURNAL prints the preliminary program in this issue. We are also inserting a separate and detached program announcement, convenient for use and easily filed away for reference. As this is the only program that will be mailed at the present time, put it conspicuously before you on your desk. Study it, familiarize yourselves with any subject that appeals to you, and come prepared to be of help to the others.

WHAT THE 1907 LEGISLATURE HAS DONE.

The work of the Wisconsin Legislature for 1907, especially in the direction of laws regulating sanitary and hygienic matters, has been distinguished by a rather higher degree of intelligence than that of previous sessions, and several important provisions have been placed upon the statute books.

One law requires vaccination of all teachers and pupils and prohibits attendance for twenty-one days after the outbreak of an epidemic of small pox of all who fail to show a certificate of having undergone successful vaccination. The fact that small pox appeared in 206 different localities during the past year renders this law an extremely important one.

Another law affects the organization of local boards of health. In some localities the state authorities had been negligent in appointing local boards of health. The statute has been so amended and strengthened that should any village, town or city fail to properly organize a board of health as prescribed by the statute, the state board of health is empowered with the right of appointing a local board or individuals to act as officers in these towns, and the expense necessarily incurred on the part of the state board in perfecting the organization is to be charged to the village, town or city in question.

Local boards of health are authorized to furnish antitoxin free to all indigent persons suffering from diphtheria, and arrangements are to be made with the large antitoxin manufacturers to supply these boards at reduced rates.

The legislature enacted a law providing that all houses wherein tuberculosis has existed, must be disinfected before reoccupancy after death or recovery of the patient. It provides further that all individuals suffering from tuberculosis of the lungs or larynx or other diseases whose virus or infectious agent is contained in the sputum, shall carry a sputum flask or receptacle in which to deposit the sputum. This means that there shall be no promiscuous expectoration in public buildings, halls, street cars, and railroad trains; and the railroad conductors or other persons in charge of common carriers may exercise the power of sheriff or constable. In our opinion this provision seems too drastic to be practicable and may result in discrediting a much needed measure. Disinfection and supervision of tuberculous houses is very necessary and the prevention of promiscuous spitting much to be desired, but to compel people who cough to carry about so conspicuous a mark of their misfortune as a sputum flask will never be found to be either humane or feasable.

The vital statistics laws were remodeled in order to make the returns prompt and complete and to conform with the recommendations of the federal census bureau.

The child labor law, the provisions of which are too many to receive detailed comment in the space of an editorial, is a most admirable and enlightened piece of legislative enactment and deserves the commendation of everyone interested in public health and social betterment.

Of great importance from many points of view, but in particular from the standpoint of public health, the Estabrook bill which passed both houses in almost its original form, providing regulations concerning the construction of tenement houses, must be mentioned with approval. The apartment houses now being built, will, in a few years, become the homes of tenement dwellers of the poorer sort, and proper regulations for their construction will most certainly make for better sanitation in the future particularly as regards the tuberculosis problem.

That the bill regulating the practice of midwifery and the requirement of registration and examination of midwives failed of passage is to be deplored, and the committee on legislation of the State Society should at the coming meeting be instructed to prepare and work for such a measure.

Of the bills more nearly affecting the medical profession little need be said, for their successful passage is well known. The control of medical advertising, the strict definition of what constitutes the practice of medicine, and the bill defining illegal, immoral and unprofessional conduct, all mark a considerable advance toward the establishment of better conditions than the profession of this state has heretofore enjoyed.

The legislature for 1907 also enacted legislation which, for the future of medical education in the state, marks an era of progress. The premedical course of the University, whose students until recently were given advanced standing in all the medical colleges of the country, was threatened with extinction by the requirement of various state boards that students must have spent four years in incorporated medical colleges. An effort to establish the first two years of a medical school at Madison was made and $50,000 asked from the state for the purpose. As a result of much opposition from those who believed another medical college in Wisconsin to be unnecessary, the appropriation feature was finally dropped, and the bill as amended, incorporating a school to give the first two years in medicine and

permitting students who have thus studied to obtain medical degrees at approved schools or a degree in medicine from the University of Wisconsin, was passed. No effort at this time is to be made toward the establishment of the junior and senior clinical years.

The work of the Legislature of 1907, certainly in so far as it pertained to matters in which Wisconsin physicians were vitally interested, was well done.

MEDICAL EDUCATION IN THE UNITED STATES.

The Council on Medical Education of the American Medical Association has, after a careful three years' investigation, including personal inspection by at least one member of the Council, of each of the 160 medical colleges in the United States, submitted its report to the Association.

Due credit is given in this report to the schools of this country for the wonderful progress that has been made in the past 25 years; but, when the standards of medical education are compared with those of European cities, the comparison does not fall to our credit. While there are undoubtedly some few medical schools that offer all the facilities found abroad, the great mass of them fall short of this ideal —if we may permit ourselves the disloyalty of looking for the ideal away from home.

Sections e, f and h, (see summary below) call for special attention. We have been strong and consistent advocates of placing the burden of medical education upon the State, and must regret the—in our opinion—ill advised and short sighted opposition that so recently manifested itself against the incorporation of a medical college as a department of the State University. Fortunately, incorporation succeeded, (without extra appropriation) but not without an unusually fierce contest.

The findings of the Council—an exceedingly clear cut and temperate statement—on the situation of medical education in the United States, is so well summarized in the report, that we print this in full.

SUMMARY.

In brief, the situation of medical education in the United States may be given as follows:

(*a*) A three years' careful study has been made by the Council on Medical Education of the American Medical Association of the conditions surrounding medical education in the United States. This study included the inspection of all the schools in the United States by one or more members of the Council.

(*b*) The great advance in the sciences in recent years has created

the necessity for a much broader and more thorough education, both preliminary and medical, for the physician equipped to practice modern medicine.

(*c*) The standards of the medical schools in the United States are very uneven, representing the highest and the lowest types as compared with the standards of England, France and Germany. As a whole, the standard in this country is unsatisfactory and much lower than in those countries.

(*d*) A modern medical education demands, 1, a four-year high school education; 2, a year of physics, chemistry and biology; 3, two years in well-equipped laboratories of anatomy, physiology, pathology and pharmacology; 4, two years in clinical work in dispensaries and hospitals; 5, a year as interne in a hospital.

(*e*) The expense for the equipment and maintenance of the modern medical school is greater than can be met by fees paid by medical students. Medical schools, therefore, need endowments in order to meet the demands of present day medicine.

(*f*) In the United States, until recent years, medical education was mostly in the hands of medical colleges conducted as private institutions, while in Europe it is controlled by the universities. Within recent years, however, some of the medical colleges in this country have secured university connection.

(*g*) There are still, however, a large number of schools which are conducted solely for profit, and profit is only possible where the college fails to provide proper facilities for laboratory and clinical training.

(*h*) There are 160 medical schools in the United States alone, as many or more than there are in all the countries of Europe combined. Of the 160 medical schools in the United States only about 50 per cent. are sufficiently equipped to teach modern medicine, 30 per cent. are doing poor work and need to make great improvements, while about 20 per cent, are unworthy of recognition.

(*i*) If the public realized the enormous difference that exists between well-trained modern medical service and ignorant inefficient medical service they would soon demand and obtain the needed reforms.

(*j*) A state without the protection of good medical laws, well enforced, becomes the dumping ground of the low-grade medical school with its output of illy-prepared medical men.

(*k*) To secure better conditions requires two things: Endowments for medical schools and better legislation providing state control of medical practice anl licensure.

(*l*) This country should not be satisfied with medical standards unless they are at least equal to those of other world powers which are our competitors in commerce, arts and science.

COUNCIL OF MEDICAL EDUCATION.
103 Dearborn Ave., Chicago.

A. D. Bevan, Chairman, Chicago; W. T. Councilman, Boston; J. A. Witherspoon, Nashville; Charles H. Frazier, Philadelphia; Victor C. Vaughan, Ann Arbor; N. P. Colwell, Secretary, Chicago.

EMPLOYMENT FOR THE CONVALESCENT CONSUMPTIVE.

It is appreciated by all who have direct dealings with consumptives that they need much guidance and repression while they are ill. It is not always easy to convince them that they still need rest even after improvement has set in under good hygiene, food, and absolute quiet. But when they themselves appreciate that they are convalescing, the difficulty of exercising restraint increases. This is the period when firmness in carrying out the principles known to be right must be employed. This the convalescent stage, is the critical period for the tuberculous.

It is essential to find employment for many who are well enough to do a limited amount of work. For this class of patients the Vacant Lot Gardens of New York and Philadelphia have been very helpful. Dr. Trudeau, of the Adirondack Cottage Sanatorium, has hit upon a novel scheme. There has been organized at Saranac an "Industrial and Gardening Association." Patients who are permitted the luxury of working, are employed in the open air, and given the opportunity of learning trades which will keep them outdoors. They are placed under the charge of a capable superintendent, are shown how to till and enrich the soil, are taught horticulture, farming, truck and poultry raising, and the like.

The plan is a capital one and can be copied with profit everywhere. Vacant out-of-town lots can be utilized for this purpose. The recovered patient who finds it necessary to be self supporting, is thus given the needed boost toward a permanent recovery. He has learned the value of an out-of-door life, and, having learned a profitable out-of-door trade also, is thus given the means of continuing it with far better prospects of maintaining good health than ever before.

NEWS ITEMS AND PERSONALS.

Dr. Peter J. Calvy of North Fond du Lac succeeds to Dr. Louis Falge's practice at Reedsville.

Dr. Louis Falge, Reedsville, has removed to Manitowoc to enter a partnership with Dr. J. F. Pritchard.

"Rush" Reunion. During the State Society meeting at Superior, the Wisconsin Alumni of Rush Medical College will hold a reunion.

Dr. Solon Marks, one of the oldest physicians in Milwaukee, celebrated his eightieth birthday on Sunday. Dr. Marks was compelled to give up practice three years ago when he fell and suffered a fractured hip.

Dr. Harvey B. Dale, aged 42, a prominent physician of Oshkosh, died July 30th at St. Mary's hospital. He was operated upon a week before for chronic appendicitis, and seemed to be recovering satisfactorily when infection set in. Dr. Dale was for years a member of the board of education and was president of that board, taking great interest in educational affairs. He was also at one time city physician and city health officer of Oshkosh.

Col. James M. Lewis, who practiced medicine at Oconomowoc up to the time of the Civil war, died at St. Petersburg, Fla., on May 17. He was commissioned surgeon of the Second Wisconsin infantry, was captured at Bull Run, assisted in taking care of wounded Confederates in Richmond hospitals, and was so employed when he was exchanged. Was appointed lieutenant colonel of the Twenty-eighth Wisconsin infantry. After the war he served the state as immigration and land commissioner for a period of four years.

Dr. Frederick R. Weber, a well known physician of Milwaukee and a leader in various societies and civic organizations, died at his home, 927 Second Street, on July 18th, of an affection of the gall bladder. Dr. Weber had been in ill health for some time past, though up to a short time previous to his death it was thought and hoped that he would recover from the attack.

Dr. Weber was born in Cedarburg in 1864. He graduated at the University of Wisconsin in 1886, then went abroad taking his degree in medicine from the University of Prague, in 1890. He established himself in Milwaukee in 1891 and had acquired a very large clientele. At the time of his death, and for several years previously, he was professor of medicine at the Milwaukee Medical College.

Dr. Weber was well known in the city and state as a physician of great ability; he was unquestionably one of the most brilliant physicians in the city.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit
4th Dist., W. Cunningham, - Platteville

FOR THREE YEARS.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., J. S. Walbridge, - - Berlin

FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta
8th Dist., T. J. Redelings, - - Marinette

FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

THE COUNTY SOCIETIES.

Quite marked progress can be reported during the past month, though it might have been better. The total number who have paid the 1907 dues is 1,200. Since the last report, the net loss in the counties reporting so far, has been reduced from 100 to 41, of which 22 are in Milwaukee. Reports have been received from 47 counties with a gain in 18, a loss in 21, while 8 are the same as in 1906. Twelve counties have not yet sent in their annual report—which is not as it should be. They are "kindly but firmly" requested to do so at the earliest possible moment, and the councilors are hereby cordially invited to assist in hurrying up these delinquent county secretaries. If the twelve counties yet to hear from do as well as they ought to, and the usual additions are received from those already reported, the ledger account will doubtless make a much better showing by an-

other month. From present indications we should come to the Annual Meeting with a membership at least equal to that of one year ago. Most of the county secretaries are making a serious effort to gather in the stragglers, and with considerable success. It has been found, too, that personal letters from the office of the State Secretary, and from the Councilors, are quite effective, since the delinquents often become hardened to the notices of the county secretaries and forget all about them.

Since the last report, Bayfield, Calumet, Crawford, Kewaunee, Manitowoc, Sheboygan, Walworth and Rock have joined the company of the "good" counties, showing a gain over last year. The natural and inevitable law, which provides that life and growth shall be the result of functional activity, shows itself in these county returns. The counties which have regular and frequent meetings—with carefully prepared programs well in advance, are almost sure not only to live but to manifest a satisfactory progress in all ways. We see this result in such counties as Walworth, Grant, Kenosha, Eau Claire, La Crosse, Richland and Rock—which all report a gain, and which all have faithful and energetic secretaries, who make adequate preparation for the meetings, and see that they are duly held.

THE STATE MEETING

will take place in about one month. The preliminary program is printed in this issue of the JOURNAL. It promises a genuine feast of good things, and we may confidently look forward to a meeting full of interest and profit. The subjects are practical, attractive and evenly distributed in the various fields. The Annual Addresses will be especially enjoyable. Dr. Crile is a surgeon of national reputation which is rapidly increasing. He has been selected to deliver the annual address in Surgery at the Chicago meeting of the American Medical Association. We are most fortunate in securing him. Dr. Dock of Ann Arbor is equally distinguished, and even more widely known in the field of medicine. These addresses alone will amply repay an attendance at the meeting. The remainder of the program is distinctly upon a high plane, both in the subjects selected and the personel of the writers.

If those finishing papers have not yet done so, they will please send at once to Dr. A. W. Gray, Milwaukee, the names of two or three members from which to select those to lead the discussions—also a brief abstract of their papers—a half dozen lines or so—to be printed in the program.

The first meeting of the House of Delegates will be held at 7:30

on Wednesday, the first day of the meeting, instead of Tuesday evening, as formerly. The House of Delegates is essentially the State Medical Society, and it is absolutely necessary that as many delegates as possible shall be in attendance at that time. Several counties have not yet reported the names of their delegates. Please attend to the matter at once, and after the delegate is elected he should make it a matter of honor to be present at the first meeting.

The meeting will be held August 21-23, as first planned. The Minnesota State Society has found it necessary to hold its meeting at Duluth one week earlier. Although we sincerely regret that we are to miss the great pleasure of a joint meeting with them it was not thought best to change our date.

It has been decided that we shall not ask the usual railroad commutation rates, but that each member shall secure the best rates he can. It is probable that there will be special excursion rates to Superior in August. If not, those who wish can buy the 500-mile ticket for $10.00 which just equals the usual 1 1-3 reduced rates. Quite a number of members are thinking of taking the boat at Milwaukee, and going via Mackinac and the Soo. This will be an exceedingly pleasant way to go, almost as good as the Yellowstone-Portland trip two years ago. As we did then, take your wives with you and we will have another red letter trip together.

Details as to time occupied in the trip, expense, etc., will be found elsewhere in this issue of the JOURNAL. No matter *how* you go, by land, water or air, *be sure to go.* We owe it to our northern brethren as well as ourselves, and, moreover, we are bound to have a grand good time.

Inasmuch as the JOURNAL goes to 1,500 members, and some who are not, it is thought best not to go to the expense of the usual preliminary program to be sent to the whole profession this year. Accordingly, this notice of the meeting in the JOURNAL is all you will get till the regular program is sent out. Therefore advertise the meeting yourselves as widely as possible.

POST THE ENCLOSED PROGRAM CARD CONSPICUOUSLY ON YOUR DESK.

C. S. S.

SIXTY-FIRST ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN.

PRELIMINARY ANNOUNCEMENT OF CHAIRMAN OF ARRANGEMENT COMMITTEE.

DR. C. H. MASON, SUPERIOR.

The 61st annual session of the State Medical Society of Wisconsin convenes in the city of Superior on Wednesday, August 21, 1907, at 11 o'clock in the forenoon, with President L. H. Pelton of Waupaca in the chair. This season of the year is the finest imaginable in Superior and vicinity. While the climate further south is one of sweltering heat, Superior is enjoying pleasant, invigorating and breezy weather, with cool nights and clear sunny days.

A trip to the Head of the Lakes at this time of the year is a rare treat well worth the trouble, aside from business or other attractions.

MEETING PLACE.—The sessions of the convention will be held in the auditorium of the Blaine High School Building, a large, light and convenient meeting place, well ventilated and just three blocks from headquarters at the Hotel Superior.

EXHIBITS.—The exhibits will be in the large and convenient Gymnasium Building of the same school. It may be stated that this will afford ample space and convenience for the finest exhibit in the history of the society. Twenty-seven spaces or sections have been provided for the exhibits and those who desire to avail themselves of this opportunity should communicate with Dr. H. J. Orchard, chairman of the committee on exhibits, who will be pleased to send blue prints, price of space, etc. Up to the present time about half of the spaces have been taken.

ENTERTAINMENT: The committee on entertainment has provided an elaborate program for the occasion. Every physician in Superior, and every other citizen, too, for that matter, is a committee of one to guide and entertain one guest; every one you meet will be a committee of information, to be used to the best possible advantage while in the city.

Wednesday, August 21.—SMOKER at the Commercial and Elks Club rooms in the Hammond block. Refreshments will be served and an elaborate program of music, speeches and small talk will be carried out. On same evening, from 8:00 to 10:00 P. M., a reception will be given at the residence of Dr. and Mrs. William E. Ground.

Thursday, August 22, at 4:00 P. M., GRAND STEAMBOAT EXCURSION on the Harbor and Lake. For this occasion, which will undoubtedly be the great event of the convention, one of the

largest and finest passenger vessels in the service at this point has been engaged.

The boat will leave the dock at Tower Bay slip at 4:00 P. M. and will steam along the harbor front up St. Louis Bay, down the habor and out into the Lake through the Wisconsin natural entry, returning through the Duluth entry at about 11:00 P. M. The excursionists will be shown our magnificent land locked harbor, large enough for all the navies of the world to execute and maneuver at one time. They will be shown our magnificent dock frontage, with mills, coal docks, elevators (the largest in the world), and railroad terminals. They will be shown the wonderful promontories known as Wisconsin and Minnesota Points, together some 12 Miles long, formed by the eddying currents of the river on the one side, and the mighty inland ocean of Lake Superior on the other, through a silent process of thousands of years' duration. Wisconsin and Minnesota Points with their places of summer amusement and their thousands of cottagers seeking the cool lake breezes as a panacea for hot August sun, will show up at their finest at the time of the convention.

An elaborate SUPPER will be served while en route; the piece de resistance will be PLANKED LAKE SUPERIOR WHITE FISH, a dish once eaten, never forgotten. Good music will be provided for this trip and nothing will be spared to make this event enjoyable and ever memorable to all who participate.

HOTELS: Ample hotel accommodations may be secured by an early word to the committee on hotels—Drs. S. G. Pake and H. J. O'Brien.

Headquarters will be at Hotel Superior, one of the finest and most comfortable hostelries in the state. Those wishing to reserve accommodations should address the above committee at once.

Hotels and Rates—Hotel Superior, $2.00 to $5.00—can accommodate 200 guests.

Northern Hotel, $1.00 to $2.00, European—can accommodate 150.

Hotel Rossiter, $1.00 to $2.00, European—can accomodate 50.

Other good hotels are the Commercial, St. James and Euclid.

RAILROAD RATES: Arrangements are being made with the Western Passenger Association for the usual reduction of rates to gatherings of this kind.

See your local agent for full information a few days before leaving home.

COMMITTEE OF ARRANGEMENTS: Dr. C. H. Mason, chairman.

Entertainment: Dr. S. G. Pake, chairman, Dr. H. J. O'Brien and Dr. Geo. Saunders.

Exhibits: Dr. H. J. Orchard, chairman, Dr. C. D. Conkey and Dr. L. A. Potter.

Pathological Exhibits: Chas. W. Giesen.

Hotels: Dr. S. G. Pake and H. J. O'Brien.

Entertainment of Ladies: C. D. Conkey and F. E. Detling.

Program Committee: Dr. William E. Ground, chairman.

INVITATION: The committee of general arrangements, entertainment and other functions in connection with this convention, together with the business men and citizens of Superior, unite in extending to all the members of the State Medical Society of Wisconsin, their wives and sweethearts, mothers, sons, daughters, relatives and friends, a hearty invitation to enjoy our city and our hospitality during this auspicious event, and we would impress upon one and all that the best we have in heart and hearth is theirs during their sojourn with us.

Superior and its citizens pride themselves on a reputation for hospitality and goodfellowship well earned in the past, and they stand ready to outdo themselves to the physicians, their families and friends.

PRELIMINARY PROGRAM
SIXTY-FIRST ANNUAL MEETING
OF THE
STATE MEDICAL SOCIETY OF WISCONSIN
AT SUPERIOR, AUGUST 21, 22, 23, 1907

WEDNESDAY, AUGUST 21st.

7:30 P. M.

Meeting of the House of Delegates at the High School Building.

The Order of Exercises will be as follows:

1. Roll Call.
2. Report of Delegates to the American Medical Association.
3. Report of Councilors.
4. Report of Treasurer.
5. Report of Secretary.
6. Election of Delegates to the American Medical Association.
   Election of Committee on Scientific Work.
   Election of Committee on Public Policy and Legislation.
   Election of Councilors—5th and 6th Districts.
   Election of Committee on Nominations.
7. Miscellaneous Business.

GENERAL SESSION, WEDNESDAY, AUGUST 21st.

MORNING SESSION—11 O'CLOCK.

Call to order by the President.
Invocation.
Address of Welcome.
Response by the President of the Society.
Report of Committee of Arrangements.
Report of Program Committee.
Report of Chairman of Council.

AFTERNOON SESSION, 2:00 O'CLOCK.

1. President's Annual Address. L. H. Pelton, Waupaca.

2. *a*) Pneumonia. L. A. Potter, Superior.

   Causation: Pneumococci, influence of cold, condition of patient, surroundings. Prevention: General and personal hygiene, disinfection. Treatment.

   b) Mechanisms of Pneumococcal Infections. H. E. Wolf, La Crosse.

   Lobar pneumonia a bacteriemia. Virulence of bacteria recovered from fatal and non-fatal cases; time of their recovery from the blood. Extent of pulmonary involvement salutary, and secondary to bacteriemia. The pneumococco-opsonic index and anti-pneumococcal power of the blood in fatal and non-fatal cases. Effect of pneumococcal vaccines in health and disease.

   Discussion opened by
   GEORGE SAUNDERS, Superior.
   H. J. ORCHARD, Superior.
   C. M. ECHOLS, Milwaukee.
   E. W. QUICK, Appleton.

3. Intussusception in the Adult, with Report of Case. C. L. Coombs, Oshkosh.

   Rarity of intussusception in adults. Difficulty of diagnosis. Chances of recovery. Report of case in adult female, of four days' duration. Resection, technique, result. Conclusion as to benefit of lavage of stomach and bowels. Necessity of large anastomotic opening.

   Discussion opened by
   KARL DOEGE, Marshfield.
   M. D. BIRD, Marinette.

4. Venereal Diseases and Marriage. D. J. Hayes, Milwaukee.

5. A Description of the Epilepsies. E. M. Turner, La Crosse.

   Description of the epileptic and the manifestations of his disorder. Great variety of types, both psychic and muscular. A satisfactory definition. Report of cases selected from three hundred patients observed in state hospitals.

Discussion opened by
B. M. CAPLES, Waukesha.
W. T. SARLES, Sparta.

6. A Practical Talk on the Treatment of Mental Diseases. E. B. Bradford, Hudson.
The subject neglected by neurologist. Neurologists prone to technical discussions. Results in state institutions. The injustice to humanity. The ideal treatment of acute insanity.
Discussion opened by
B. M. CAPLES, Waukesha.

THURSDAY, AUGUST 22d.

MORNING SESSION, 9:00 O'CLOCK.

7. Symposium on Headache.
Internist, L. F. Jermain, Milwaukee.
Neurologist, B. M. Caples, Waukesha.
Gynecologist and Surgeon, L. R. Head, Madison.
Ophthalmologist, H. V. Würdemann, Milwaukee.
Aurist, C. D. Conkey, Superior.
Nose and Throat, H. B. Hitz, Milwaukee.
Discussion opened by
W. H. NEILSON, Milwaukee.
J. M. DODD, Ashland.

8. Simple Ulcer of the Female Bladder. M. W. Dvorak, La Crosse.
Report of Cases. The cystoscope as a means for correct diagnosis. Curettage and topical applications used in the treatment of these cases.
Discussion opened by
W. A. GORDON, JR., Oshkosh.
F. W. POPE, Racine.

9. Management of Labor. F. W. Epley, New Richmond.
Some convictions on the subject. Meddlesome midwifery. Fallacies regarding so-called antiseptic obstetrics. Choice and application of forceps and other aids to the process of labor.

11:30 A. M.

10. Annual Address in Medicine. George Dock, Ann Arbor, Mich. "Recent Advances in the Pathology and Therapeutics of Heart Disease."

AFTERNOON SESSION, 2:00 O'CLOCK.

11. Nerve Lesions Complicating Simple Fractures of Long Bones and Their Treatment. Karl Doege, Marshfield.
Frequency of nerve lesions in fractures. Sensitiveness of nerve tissue to pressure. Traumatism to nerves is immediate or remote. Imme-

diate traumas are contusions or divisions of nerves; remote, due to scar tissue formation. Symptomatology. Differential diagnosis between contusions and division of nerves. Treatment: Contusions, by expectancy, galvanism, etc.; divisions, by nerve suture. Case.

Discussion opened by

C. H. LEMON, Milwaukee.

CHRISTIAN MIDELFART, Eau Claire.

12. Removal of Gall-stones from the Second and Third Portions of the Common Bile-duct. F. Gregory Connell. Oshkosh.

Comparison of the retro-duodenal with the trans-duodenal approach, with the conclusion that the latter is generally the better method. Report of a successful case of trans-duodenal choledochotomy. Analysis of collected cases.

Discussion opened by

EDWARD EVANS, La Crosse.

R. H. JACKSON, Madison.

13. Early Diagnosis of Gastric Carcinoma. Wm. Ackermann, Milwaukee.

14. Prevalent Ocular Diseases. N. M. Black, Milwaukee.

A brief description of the diseases of the eye commonly met with in general practice, together with an outline of the generally accepted treatment.

Discussion opened by

C. D. CONKEY, Superior, Wis.

15. X-Ray Burns. O. H. Foerster, Milwaukee.

16. Complications and Sequellæ of Scarlet Fever. Otho Fiedler, Athens.

Resumé of complications and sequellæ, treatment and results, in 147 consecutive cases observed during the last year.

17. The Physician in His Relation to Contagious Diseases and the Public. C. A. Harper, Madison.

Positiveness in diagnosis in contagious diseases as compared with other diseases. Early diagnosis essential to success. Laboratory as an aid in diagnosis. Protection to the public first. Establishment and maintenance of quarantine. The layman's diagnosis vs. that of physician.

FRIDAY, AUGUST 23d.

MORNING SESSION, 9:00 O'CLOCK.

18. Symposium on Puerperal Sepsis.

a. Etiology and Pathology, Wilhelm Becker, Milwaukee.

b. Diagnosis and Clinical History, George Saunders, Superior.

c. Surgical Treatment, J. M. Dodd, Ashland.

d. Medical Treatment, H. L. Rosenberry, Wausau.

Discussion opened by
J. R. BARNETT, Neenah.
HERMAN REINEKING, Milwaukee.

10:00 A. M.

19. Annual Address in Surgery. George W. Crile, Cleveland, Ohio. "On the Direct Transfusion of Blood."

20. Variola. J. P. Cox, Spooner.
Discussion opened by
H. J. O'BRIEN, Superior.
J. B. TROWBRIDGE, Hayward.

21. What Does Disease Mean? Herman Gasser, Platteville.

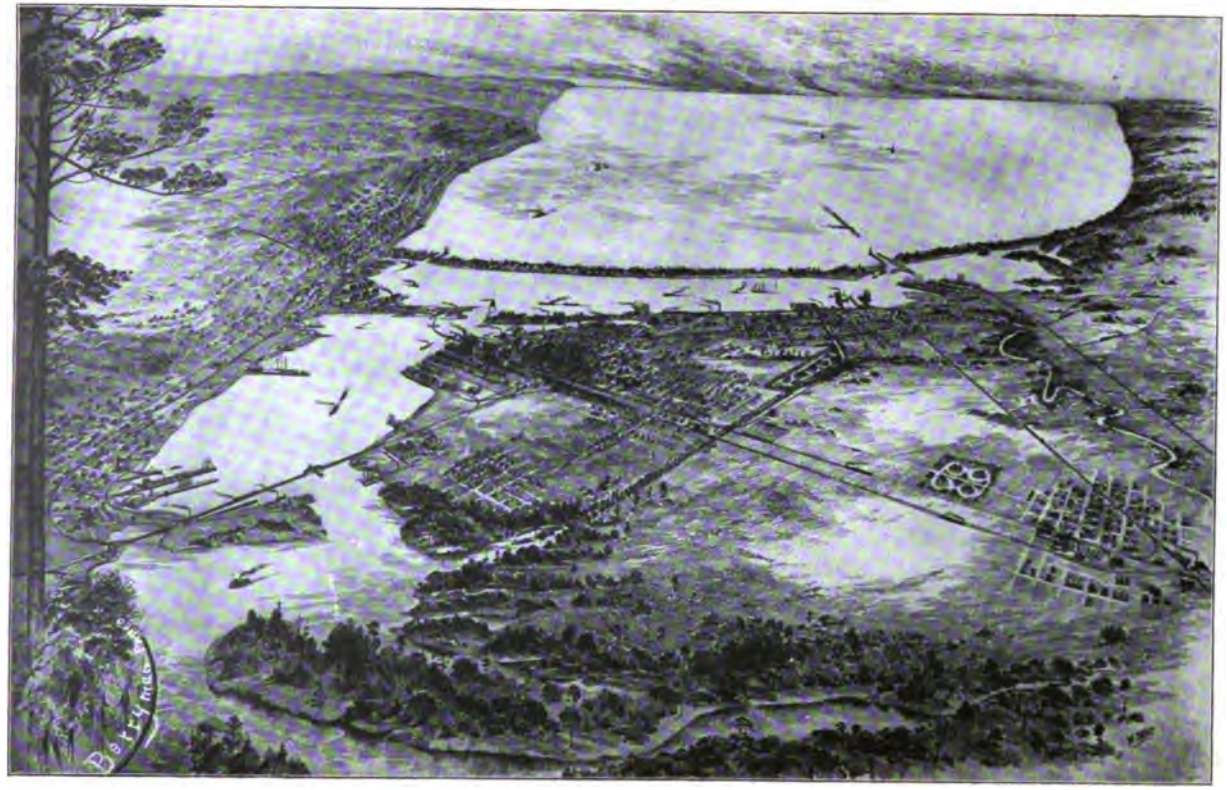
TO THE LADIES.

(Contributed by Mrs. G. H. Conklin, of Superior.)

The days of the height of glory in the Superior region are always in August. This is the season when all who will, may take a holiday.

Residence of Dr. and Mrs. Wm. E. Ground, where reception will be held Wednesday Evening.

Many Superior people remain at home during the best summer weather, and are thus ready to receive the out-of-town guests. So you will see that we are very glad that the Wisconsin medical men have chosen Superior City for their big yearly meet.



BIRD'S EYE VIEW OF SUPERIOR.

The Superior doctors' wives sincerely hope that many of the wives of our State physicians and surgeons will take this opportunity to accompany the good doctors to this hot weather Mecca—where the cool breezes of the lake are ever refreshing and renewing the recuperative energies.

There are vast expanses of sky and water, pleasant drives and river trips by boat, which may be enjoyed at this time of the year in this north clime. All foliage is usually quite as green as in the spring.

For the lovers of the "out of doors", we have many charms, and for those who are socially inclined, we have planned the following program for the ladies:

Wednesday, August 21. From 8 to 10 P. M. Reception at the residence of Mrs. Wm. E. Ground, 1708 Ogden Ave.

Thursday, August 22. From 10 A. M. to 3 P. M., A tally-ho ride and luncheon.

Thursday, August 22. From 4 to 10 P. M., A boat ride and banquet.

All ladies are requested to register with the husbands and receive a card of admission to the reception.

The Superior physicians' wives extend a very real welcome to their sisters throughout the state medical profession, and hope that many women may share with their husbands a three days' rest and recreation at the Head of the Great Lakes.

SUPERIOR.

BY A. J. WENTZEL, CITY COMPTROLLER.

At the extreme end of navigation on the Great Lakes, 350 miles nearer the Great West than Chicago, stands the City of Superior, the location of which is unanimously commented upon by strangers as the site proposed by the Creator for a great city. Truly no living engineer could have provided so ideal a plan.

Triangular in shape the City is bounded on the northwest by the St. Louis River and Bay, on the northeast by Superior and Allouez Bays, and on the south by the township boundary line. The beautiful as well as navigable waters of the Nemadji River flow northeast through the southern boundary and empty into Superior Bay, well nigh the center of the City. Forty-two square miles are included in these boundaries, comprising thirty square miles of dry land and seven miles of unsurpassable dock facilities. Topograpically the site is level; not a hill to mar the plan or obstruct the vision; simply a gradual slope to the water's edge of fifty feet to the mile.

SUPERIOR'S NORMAL SCHOOL—ONE OF THE FINEST IN THE STATE.

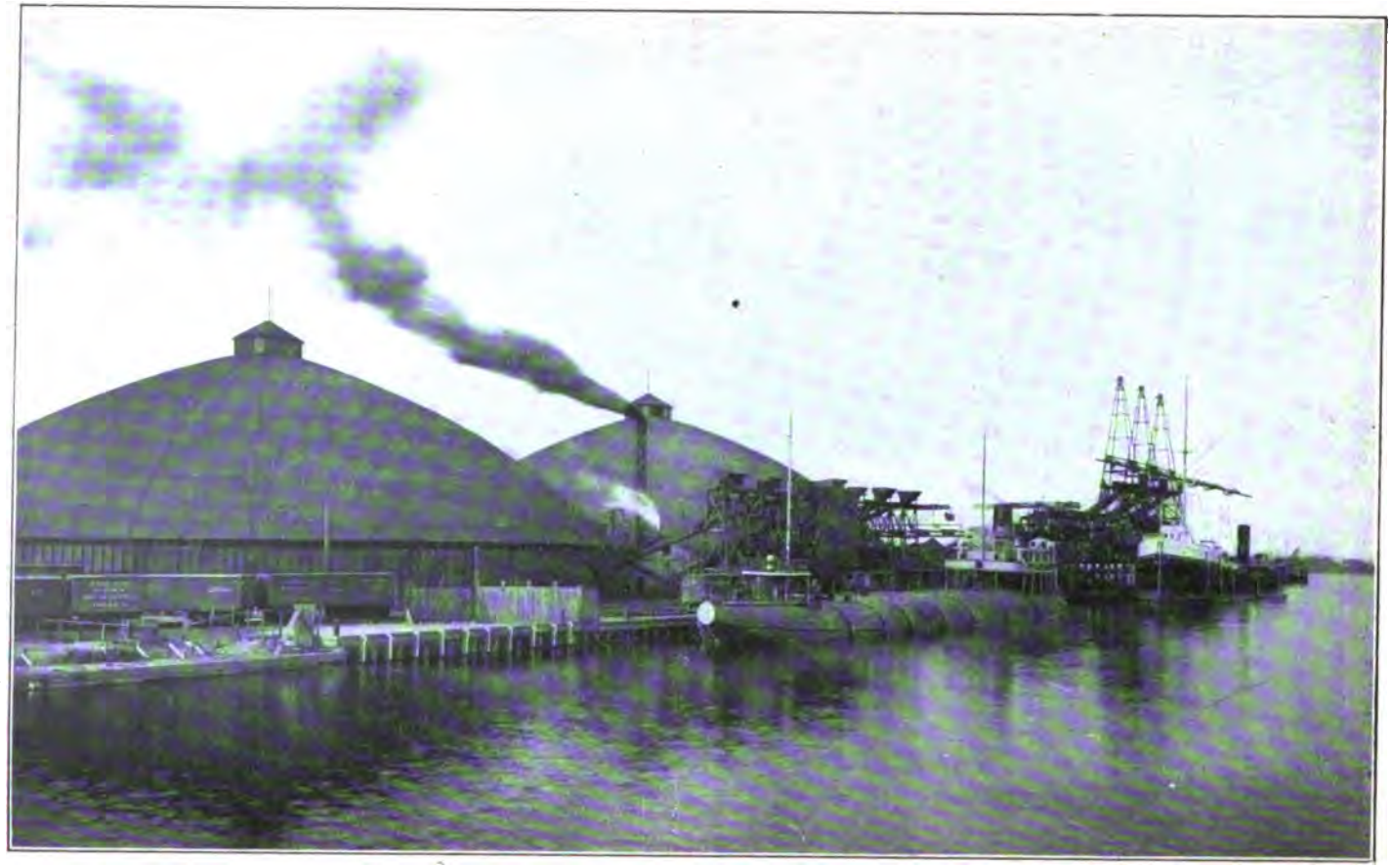
The climate is tempered by Lake Superior, the largest, deepest, coolest and purest body of fresh water on the globe, which water changes but few degrees in temperature the year round, causing mild and equable winters and delightfully cool summers, imparting comfort and good cheer to the people of Superior and joy and inspiration to the visiting strangers.

During the hot summer days when the grasshoppers become a burden and the news of many sunstrokes is heard in the land, visitors at Superior are drinking in the exhilarating ozone wafted by the breezes from off the lake, bays and rivers, spiced with the tonic of health imparting odors of pine and cedar forests.

Perchance the stranger tires of being sung to sleep by the weird

HOTEL SUPERIOR.
Two hundred rooms, with all modern conveniences.

and mourning lullaby of the pines on the Lake shore; he may explore the many islands of the picturesque St. Louis River, even so far as the old Indian Trading Posts at the Fond du Lac Rapids a few miles above Superior; or, a couple of hours drive will bring him to Black River Falls, where the river banks are shaded with luxuriant old trees and the sunlight through the foliage lights up with many rainbow effects the waters that leap from rock to rock in a broken cascade one hundred and thirty-one feet in length, forming a truly enchanting, romantic and beautiful spot.



ONE OF SUPERIOR'S LARGEST COAL DOCKS.

If a drop of sportsman's blood flows through the visitor's veins he may have his heart's desire easily gratified by visiting the Brule River, Solon Springs, Bardon Lake, or any of the many streams and lakes within an hour's ride of Superior, where trout and bass and other fish are landed in goodly numbers.

Some two centuries ago the red man, acting on the instinct given him by Nature, saw here the vantage ground and established here his Indian village, which later became a trading post for the fur companies.

From time out of mind the great statesmen of the country, appreciating the strategic position of the Head of the Lakes, as well as the singularly favored natural advantages and unsurpassed resources, have pointed to Superior as the seat of a powerful industrial and distributing community. That their prophetic statements and far-seeing judgment were well founded, is being demonstrated at this present day by every rising sun that finds in Superior a new railroad or a new industry begun.

Although but little beyond the half mile post of a quarter of a century, having in 1890 but 11,000 population, and an estimated population of 42,000 at the present time, Superior has established within her borders the largest dry dock on the great lakes; the largest ore dock and largest freight dock as well as the largest elevator in the world. Four of the largest railroad systems now enter Superior, with their terminals, docks, elevators and warehouse facilities. Two more roads, the Soo and Wisconsin Central, will have completed their lines into the City before the close of the present year, and will have begun the construction of their shops and terminals. Fourteen mammoth coal docks at Superior are now distributing coal from the east to the western country, and other coal docks are now in process of construction.

The port arrivals and clearances for Superior and Duluth harbor rank third among the ten largest ports of the world, being surpassed only by New York City and London. The faith of the government in Superior is being demonstrated by an expenditure of $2,000,000 on the entry to Superior harbor.

During the past year or more Superior has become known in a new role, and in this respect, as in all others, has established a record. Her exhilarating cool summers as well as enterprise and commercial possibilities are attracting the attention of Wisconsin's citizens, and the fraternal organizations of various kinds within the state, are very generally planning to hold at Superior their next convention.

PART OF GREAT NORTHERN RAILWAY YARDS AT SUPERIOR.

"From the regions of the morning
From the shining land of Waubun
Gitche Manito the Mighty
The Great Spirit, the Creator
Sends them hither on his errand,
Sends them to us with his message
By the shore of Gitche Gumee
By the shining big sea water."

Superior takes much pleasure in showing her appreciation of the honor conferred upon her in the decision of the State Medical Society of Wisconsin, to hold its coming annual convention there.

Much more might be said as to our commercial interests, our general attractions to strangers, and our plans and facilities of entertainment, but in this brief space we can not tell all, and can no more satisfy curiosity in this respect than express our hearty welcome in cold print.

"Seeing is believing," and we therefore implore the stranger to come and see, and during his sojourn by the Big Sea Waters, every effort will be made to impress upon him the significance of the name of our City, that in all things we are "Superior", and in the words of Hiawatha:

"Superior welcomes the strangers
Hails them as her friends and brothers
And the heart's right hand of friendship
Gives them when they come to see us."

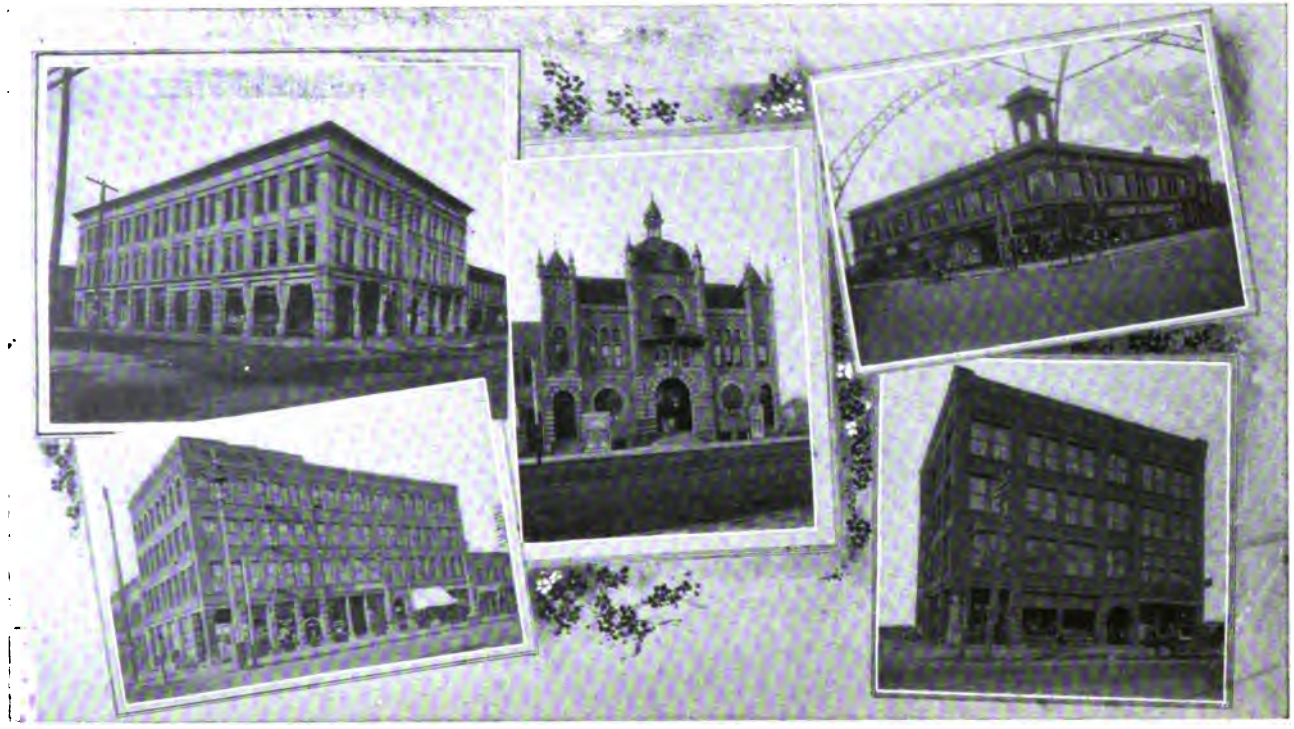
TRANSPORTATION INFORMATION.

Chicago and Northwestern R. R.

Leave Milwaukee 8 P. M.
Arrive Madison 10:25,
Leave Madison 1:15 A. M. (Board sleepers here).
Arrive Superior 10:45 A. M.
Rate: $9.40 one way; $16.00 round trip.
Or leave Milwaukee 10:15 P. M.
Arrive Hancock 11:00 A. M.
Rate: $10.00.

Wisconsin Central Railway (Through Sleeper).

Leave Milwaukee 8:45 P. M.
Arrive Superior 11:15 A. M.
Rate: Same as *via* Chicago and Northwestern.
Or Milwaukee to Ashland—arriving at 7:40 A. M.
Rate: $8.15 one way; $14.00 round trip.



GROUP OF SUPERIOR'S BUSINESS BLOCKS.

Northern Steamship Co.

Leave Milwaukee (S. S. North Land) 10:00 P. M. Saturday.
Arrive Mackinac Island 4:00 P. M. Sunday.
Leave Mackinac Island (S. S. North West) 11:30 A. M. Monday.
Arrive Duluth 8:00 P. M. Tuesday.
Returning, boat leaves on Tuesday at 11:30 P. M.
Fare: $16.00 one way; $28.00 round trip.
Berth: $3.50 and upwards, according to location.
Meals a la carte.

Write early to Milwaukee office (Pabst Bldg.) for reservation.

The North Land does not stop at Marquette going west, but does call at this port when east bound.

The Anchor Line of boats stop at Mackinac, the "Soo," Marquette, and Portage Lake (Houghton and Hancock), arriving at Duluth on Monday, August 19, two days in advance of the meeting This line is available for those who wish to board boat at any of these points, and who do not object to arriving at Duluth (or Superior) in advance of the meeting. Many beautiful short trips can be made from Duluth.

The United States and Dominion Transportation Co. (Booth Line) operate steamers on the south shore of Lake Superior to all points between Houghton, Hancock and Duluth, and continue on the north shore to Port Arthur, Isle Royal, etc. These boats leave Houghton-Hancock on Sundays and Wednesdays at 8 P. M., arriving at Ashland on the following morning at 9 o'clock, and at Duluth same evening at 7.

Returning, they leave Duluth on Tuesdays and Fridays at 10:00 A. M., arriving at Houghton-Hancock at same hour on following morning. Fare for the round trip is $5.00, including berth and meals

N. B.—Address *Journal* (Information Bureau) for any further particulars concerning routes listed above, or for any other information concerning meeting and transportation.

DODGE COUNTY MEDICAL SOCIETY.

An adjourned meeting of February 4th was held at Beaver Dam May 13, 1907. Ten members were present.

Interesting discussions in which all members took a lively interest were started on the following topics:

1. Treatment of acute lacerated and contused wounds.
2. Indications and methods of uterine curettement.
3. Patellar Fracture.
4. Deep seated inflammations of fingers and hands.

GREAT NORTHERN ORE DOCK - LARGEST ORE DOCK IN THE WORLD.

The following officers were elected: President, Dr. W. E. Hallock, Juneau; vice-president, Dr. H. M. Holtz, Beaver Dam; secretary and treasurer, Dr. George W. Dewey, Burnett; censor for three years, Dr. E. P. Webb, Beaver Dam; delegate, Dr. H. B. Sears, Beaver Dam.

The next meeting will be held in July at Juneau.

GEORGE W. DEWEY, M. D., *Secretary.*

Dodge County Medical Society held a meeting in Congress Hall at Juneau, July 8th, 1907. President Dr. W. E. Hallock called the meeting to order at 11:00 A. M. Nine members were present and three visiting members of the profession.

Dr. C. J. Habhegger, of Watertown, presented a patient with a dilated stomach with a probable partial obstruction of the bowel, then read a paper on Relative Insufficiency of the Stomach".

Address: "Contagious Diseases and the Physician's Duty," by Dr. C. A. Harper of Madison, Secretary of the State Board of Health.

At 12:30 P. M. all present sat down to a very fine dinner at the hotel.

An address, "Work of Wisconsin Tuberculosis Sanatorium," by Dr. C. A. Paull of Wales, Wis., Superintendent of Wisconsin Tuberculosis Sanatorium, was delivered at the afternoon session.

Moved and carried that anyone eligible wishing to join the society before the State Medical Meeting may do so upon the approval of the President and Secretary and three members.

A rising vote of thanks was extented to the visiting members in appreciation for the part they took in the program.

Moved and carried to hold the next meeting at Mayville the 1st Monday in September.

GEO. W. DEWEY, M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

The July meeting of the Fond du Lac County Medical Society was held at the Hotel Ewing, July 10th, 1907, at 7:30 P. M. The wives of the married M. D.'s were invited to the meeting, so the result was that a more festive crowd than usual sat down to supper. The program consisted of one paper—*The Early Diagnosis of Tuberculosis and the Relation of the State to its Sanitary Treatment* by Dr. G. V. Mears of Fond du Lac.

Dr. Mears said that the symptoms of tuberculosis do not manifest themselves as soon as the disease gets a foothold, it must be some time after infection before disturbances occur. Then patients vary as to the reaction of the infection; finding of the bacillus does not always mean an early diagnosis and it is not safe to wait till it is found before warning our patients—in many cases a positive diagnosis can be made before we find the bacilli. A careful history of pleurisy, bronchitis, persistent cough, or cervical adenitis followed later by loss of weight should be noted. If the loss of weight is such that the ratio of weight is less than 25 pounds in men and 23 pounds in women it is suspicious and a searching examination may reveal the disease. Dilatation of one pupil may be an early symptom. Hemorrhage may be an early symptom, at least an early symptom to show itself and it is often a fortunate occurrence.

Coffmon of Ashville, N. C., in an analysis of 256 cases as to first symp-

toms found cough the first in 114, loss of weight and strength 50, hemorrhage 20, pleurisy 18, easily induced fatigue 14, disturbances of nervous system 10, digestive disturbances 8, sore throat 4, and night sweats 3. The body temperature is of more importance than any single symptom. The fever may not be high, usually ½ to 1½ degrees. In all doubtful cases the temperature should be taken every two hours from 9 A. M. till bedtime. Slight exercise causes a rise of temperature. Cough is often an early symptom and if persistent points to tuberculosis unless it can be positively excluded.

Infection may show wasting of shoulder muscles and changes in the shape of chest and relative measurements of the lungs. A diminished excursion of the diaphragm on one side points to disease of that lung.

Palpation may be of help if we can detect small area of vocal fremitus, old pleurisies and pneumonias being excluded. Before palpation is of much service percussion will tell us much more. If the lesion is near the surface there will be an increase in the pitch of the percussion note, there will be no flatness, merely an impaired resonance in the supra-scapular and clavicular region. Percussion may show the retraction of the apex of the lung.

Auscultation is our chief reliance in detecting early changes; a localized friction sound at apex, at lower angle of scapula, or over the heart may be first definite change. Roughness of the inspiratory sound, crepitant rales or bronchial breathing may be heard. The vocal sounds are early increased; prolonged expiration is not shown enough in the *early stages* to be of much or any help.

Tuberculosis from its nature requires special laws to meet the requirements of sanitation. The poor should be taken care of, as our insane and criminals are, for the protection of society.

Sanitaria should be built for those who cannot properly care for themselves and for those who *will not* care for themselves. A system of surveillance for all who have the disease that all may be brought under the same regulation, an efficient system of disinfection for all public and private buildings and public conveyances should be maintained.

Registration of all those having the disease is absolutely essential that all germs thrown off may be destroyed at once. The antispit law should be enforced. There should be local societies to prevent tuberculosis as well, for these local societies can do much that is outside the province of the State. Public buildings can be looked after by the State but private houses cannot. We should all be a vigilance committee. People can close or open their windows at will. They will open them if they learn that it is to benefit their health. It is better to begin the open air treatment long before disease appears. If good air and sunlight helps the sick, if used in time it will prevent sickness.

Discussion was general.

F. A. READ, M. D., *Secretary.*

IOWA COUNTY MEDICAL SOCIETY.

The Iowa County Medical Society met at the County Asylum July 9. Dr. Lawler, attending physician to the asylum, gave a clinic which was quite interesting, after which Dr. Parmley read a paper on *When to operate in cases of Appendicitis* and Dr. Lawler one on *Typhoid Fever*. Both papers were

very interesting and elicted a warm discussion, every member present joining in the discussion. The members then inspected the buildings and grounds of the institution and were shown around by the genial Superintendent Mr. Perkins. Everything was found in the very best condition, a credit to the Superintendent.

On the whole the meeting proved to have been the best in the history of the society.

A few physicians still persist in absenting themselves from the meetings of the society and as we believe to their detriment, we hope that ere long they will see the folly of their ways.

S. P. DEAHOFF, M. D., *Secretary.*

WASHBURN-SAWYER-BURNETT COUNTY MEDICAL SOCIETY.

A large and enthusiastic meeting of the Washburn-Sawyer-Burnett County Medical Society with the Polk-Rusk-St. Croix County Medical Society as guests was held at Spooner on June 4, 1907. Several interesting papers were read. Dr. Hedback of Minneapolis presented a paper on *Some Thoughts on Fractures.* The paper was pre-eminently interesting. Dr. Boothby of Hammond read his now famous paper entitled *Men, Women and Things, principally Things.* The paper has been discussed very severely in several societies. It is highly interesting and shows the handiwork of a master mind. The paper deals largely with the social evil and throughout the entire argument a spade is called a spade and not a shovel. The paper is one that should be read before the State Medical Society. Dr. Cox's paper on the *Antiseptic Treatment of Typhoid Fever* was discussed freely by both societies. A banquet was held at the Railroad Hotel in the evening.

J. P. COX, M. D., *Secretary.*

WINNEBAGO-OUTAGAMIE COUNTY MEDICAL SOCIETIES.

After supper at "The Kasson" the Winnebago County Medical Society and the Outagamie County Medical Society were called to order, in their first joint meeting, by President Combs of the Winnebago Society at the K. of P. Hall, Neenah, Tuesday, July 2d. On motion of President Nolan of the Outagamie Society, Dr. Todd of Neenah, was made chairman of the meeting. Dr. W. E. Zilisch of St. Mary's Hospital, Oshkosh, read a paper on, *Appendicitis* which was a most interesting report of fifty operations for appendicitis which were performed at St. Mary's Hospital during the last three months. Drs. F. Gregory Connell, Oshkosh, and Norman P. Mills, Appleton, led a discussion which was participated in very generally. Dr. J. S. Reeve, of Appleton, read an exceptionally able paper on *Gastric Neuroses.* The discussion of this paper was opened by Dr. J. R. Barnett of Neenah. Great interest was shown in both the paper and its discussion and all agreed that this important condition had been too much neglected by the profession.

A unanimous vote of thanks was extended to the Neenah physicians for their royal entertainment. That the thirty-six present were well pleased with the meeting is evidenced by the fact that the Secretaries of the two societies were made a committee to arrange for another meeting next year.

The local men followed the meeting with a splendid lunch and smoker, which will be one of the pleasant memories of all present.

JAMES G. SCHALL, M. D.,
Secretary of the Winnebago County Medical Society, and
M. J. SANDBORN, M. D.,
Secretary of the Outagamie County Medical Society.

The Third Councilor District Society (Central Wisconsin) met jointly with the Dane County Medical Society at Madison on July 30th, at 10 A. M. The following program was carried out punctually as arranged. Attendance was unusually large; 76 took dinner together at the Woman's Building.

1. Lympatics of the Lungs. Prof. W. S. Miller, Madison. Discussion opened by Dr. B. M. Allen, Instructor in Anatomy, U. W.

2. Presentation of Some Instructive Pathological Specimens, R. H. Jackson, Madison.

3. Etiology, Symptomatology and Non-operative Treatment of Flat Foot. Edward H. Ochsner, Chicago. Discussion by the Society.

4. Modern Aspects of Digestion. Prof. H. C. Bradley, Madison. Discussion opened by Dr. Julius Stoughton.

5. Exhibition of Dogs in which Dr. Erlanger has produced artificial heart block. Prof. Chas. R. Bardeen, Madison.

A feature of this meeting was the combination of two or three strictly basic scientific papers of the University men with the two more directly practical papers of Drs. R. H. Jackson, of Madison, and E. H. Ochsner, of Chicago. We believe this is a combination which medical societies could with profit copy occasionally. We are too often apt to disregard the work that is being done in physiology, anatomy, physiologic chemistry and other basic sciences in medicine as of no practical value to the physician. If we would only stop for a moment and take note of some of the work that has recently been done, *e. g.*, in the department of digestion and assimilation there would be a very great improvement in our diet lists, and a very great lessening of the prescriptions for ready made peptones, predigested foods, and compound digestive mixtures.

At the dinner Dr. Chas. R. Bardeen, Professor of Anatomy, responded to the toast on "Medical Study at the University", giving an outline of the work which the University intends to do in the basic medical studies covering the first two years of the medical course.

Dean E. A. Birge of the University gave a very instructive talk on the subject of "What preliminary education best fits a man for the study of Medicine". Dr. Birge did not urge any special branches of study, but contended that the foundation should be broad and thorough and that it was important that the student should receive sufficient training so that he be thoroughly imbued with the true scientific spirit. The ancient classics are, he said, perhaps as good as any, but he did not hold that they are absolutely essential.

Dr. Noer responded very briefly to the toast on "Medical organization", calling attention to the great practical as well as scientific value of medical societies, the present meeting being an excellent illustration of both.

Dr. C. A. Harper acted as toastmaster.

J. NOER, M.D., *Acting Secretary.*

THE WISCONSIN
MEDICAL JOURNAL

AUGUST, 1907.

ADDRESS.

RECENT ADVANCES IN THE STUDY OF HEART DISEASE.*

BY GEORGE DOCK. M. D.,

ANN ARBOR, MICH.

When I received the invitation to address your Society, I had the same difficulty that always accompanies such an honor,—the choice of a subject. But when I selected as a topic one I was at the time, and for a long period have been interested in, I felt that it was not only a live one—in the sense that many men are working at its elucidation, in different ways—but also because it concerns not only those who busy themselves chiefly with internal medicine, but all who see patients seriously ill from disease or from operations, or who need operative treatment for ailments of various kinds. After I had made my decision, I discovered that the excellent and instructive address of Dr. Stengel, "A Review of Cardiac Pathology," was given before this Society in 1900, but this did not alter my choice, because I had intended to take up a different phase of the subject, in some respects a continuation of the former one.

We are entering upon a new era in the investigation of diseases of the heart. For several years the so-called functional diseases of that organ have engaged the attention of some of the most original minds in physiology and clinical medicine. Perhaps it may be necessary for me at once to make an explanation. Not many years ago any one who discussed functional diseases ran a serious risk of being considered weak-minded. The chief effort then was to discover alterations of structure and to explain symptoms by the changes found. In so doing, the symptoms most interesting at

*Address in Medicine before the State Medical Society of Wisconsin, Superior, August 22, 1907.

the time were considered, but not necessarily all the phenomena that could be discovered, even by simple methods.

A more rational manner would be to endeavor to understand all morbid phenomena, functional as well as structural, and to assign to functional deviations their proper relations to normal functions, as well as to learn all about possible anatomic alterations associated with or following the functional anomalies. To assume, however, that alterations of function are not worthy of study is quite as irrational as it would be, *e. g.*, to refuse to investigate certain structural deviations because they do not invariably produce symptoms, gallstones, for example, or foreign bodies in the vermiform appendix.

In such a mode of investigation it is evident that knowledge would not travel at all times on the same road, or with the same speed on parallel roads, but in different directions and with different rates of speed at various times, and even sometimes with wide wanderings from the original path. The more complex the function of an organ, the more difficult will be the deciphering of its alterations, since new methods constantly have to be devised to unravel the phenomena, or experiments must be applied, to clear up what simple observation cannot give. In the case of the heart, with its cardinal importance to the body as a whole, with so many and so great and diverse demands upon its powers, the state of knowledge has at all times had a very marked effect upon clinical appreciations.

It is not necessary to exhaust ancient history in order to make this clear. Suffice it to allude to some of the salient points. The ancients, ignorant of the circulation, believed the heart was immune to disease, "cor aegrotare non posse." Even Galen's discoveries did not materially alter this idea and it was not until Harvey showed the part of the heart in the circulation that the error—so natural to the uncritical mind—could be overthrown. In fact, Harvey himself made some contributions to cardiac pathology, especially a case of nocturnal cardiac pain with apprehension, doubtless from coronary artery disease, though Harvey was not able properly to interpret the symptoms.

The great anatomists and clinicians of the 17th and 18th centuries made enormous strides, though their contributions seem meagre enough when viewed from the vantage-point of today. Vieussens (1715) recognized the influence of pericarditis upon the functional capacity of the heart. He observed the calcification of semilunar valves but was ignorant of their description by previous writers. He

also noted the jerking pulse so well described by Corrigan and by Hope long afterward. Lancisi (1706-1728) well described hypertrophy and dilatation, under the name still applied a century later—cardiac aneurysm, and discussed the relation, still unsettled, of such processes to palpitation. He knew that irregular pulse was not a constant feature in these cases. Albertini (1761) may be called the founder of cardiac palpation. By its aid he was able to distinguish between hypertrophy and dilatation, at least as well, perhaps, as any one can. Morgagni (1761), whose works form so rich a source of information even now, covered all sides of the subject as it was then known. It was Senac, (1749-1783) however, who first gave the modern touch to cardiac pathology, his great work being based on normal anatomy and physiology. He first definitely recognized inflammation as a cause of heart disease. But it was in therapeutics that this great man showed his wisdom, and demonstrated how rational treatment may be based upon a sound view of altered function, and in advance of etiology and pathologic anatomy. He realized the importance to the heart patient of avoiding strain; of regulation of food and drink; the relation of the stomach and liver to heart disease; the advantage of quieting nervous symptoms and avoiding emotional stress. He knew the danger of intercurrent disease and the value of special treatment for the severe stages and for sequels, such as dropsy.

Great as were these advances, it is probably true that they did not much influence contemporary medical ideas, still less practice. The diagnostic methods of those great men were such as could be mastered only by long and assiduous application at the bedside, assisted by autopsies, reading and reflection. As an example of the fact that not only anatomic and physiologic knowledge, but also diagnostic technic require a certain receptivity and preparation, we have the example of Auenbrugger's discovery of percussion. This was given out in the same year in which Morgagni's work appeared, and while Senac was still working on his own. Auenbrugger showed, as regards the heart, the feasibility of detecting changes of size and shape in pericarditis and in dilatation, and the great prognostic value of recognizing sudden dilation in pneumonia. But this was almost wholly ignored; wholly so far as practical application was concerned, and was only revived in the beginning (1806) of the last century by Corvisart. From that time, and largely through the influence of Corvisart and the investigations of his pupils, progress was more rapid. The discovery of mediate auscultation and the study of auscultation in general grew out of Corvisart's practice of palpa-

tion and percussion. The immediate impulse to use the roll of paper for auscultation was due to the sex and embonpoint of the patient. Would that every effort to spare the feelings of our patients were so fruitful!

These means of clinical examination were fortunately made at the dawn of modern pathologic anatomy, and at the hands of such men as Piorry, Bouillaud, Hope, Walshe, Graves, Stokes, Skoda, and many others down to our own time, gave us a fund of information not only colossal in itself but all the more imposing when we remember that the whole subject is hardly two centuries, the greater part only a century old. But the advance chiefly concerned the class of valvular disease, and it was accompanied by certain serious drawbacks from which we still suffer.

One of these is the mechanical view encouraged by the subject itself. Murmurs, i. e., abnormal noises, were the most striking evidences of the diseases. They could be explained on simple mechanical principles to the satisfaction of any one. The lesion showed a mechanical defect. The heart was considered a pump of simple construction and the most obvious final conclusion was that the defect was to be overcome by more force, rather than by a wise utilization or a conservation of force.

There was also a neglect of one of the important factors in the formation of the cardiac valves—the muscles that support and narrow their orifices, and make them different from lifeless valves. This factor is now generally recognized, and the action of the muscle in compensating for the lesion is also more accurately estimated.

In diagnosis, too, the murmurs were used according to a scheme that was too rigid. Certain kinds of murmurs, or certain localizations or transmissions led to conclusions not warranted by the facts. Most important of all, the diagnosis was likely to stop short of completeness, because a name was easily acquired, a name that seemed enough to satisfy the most exacting, and the accuracy of which put many a prosector to his trumps, even if it did not indicate the physiologic value of the subject in his lifetime.

Erroneous ideas of the prognosis of valvular disease were certain to follow, and even now we find serious mistakes in this connection, not so much regarding the chance of complete recovery as regarding duration of life and extent of functional capacity.

In short, we know now that the heart muscle is more than a crude propulsive organ. Besides this, it narrows orifices, fixes valves, directs currents, and has a marvellous range of adaptability.

As regards prognosis of valvular disease, we recognize certain classes of possibilities. Many, perhaps most of these are due to infection, by germs varying greaty in general and special characteristics. The same cause that affects a valve usually damages more or less the muscle. It is clinically convenient to use such terms as simple, malignant, septic, etc., but to use these with an illusion as to their exclusiveness would be following the example of those who should call all their fatal cases of infantile diarrhea, cholera infantum, those that recover summer-complaint. In the case of cardiac infections we should distinguish anatomic and functional recovery. Both valve and muscle may heal so that function will be completely preserved. Or the anatomic healing may be imperfect and yet the defect be compensated by the muscle. Or, the muscle may not be restored to functionating state, be the valvular lesion large or small. It is obvious that the slighter the anatomic defect, the more readily can function be preserved. How we may estimate the relative or absolute functional capacity of the heart muscle is evidently an important question. Efforts to devise a simple and satisfactory test like those we have for the strength and endurance of the voluntary muscle have so far been disappointing. I refer to methods that show the reaction of the heart to accurately measured work, the details of which need not be discussed at present. They have been critically reviewed in a recent article by Norris, and future developments will be awaited with interest. While seeking further for instrumental methods, we should not forget that we have other guides to the functional power of the heart. Some of these have long been used, and they have aided the older physicians to an accuracy as remarkable in its way as the legendary pulse-feeling of the learned Thabet Eb'n Abrahim, which, by the instant touch of an artery enabled him to tell whether the patient had eaten beef or mutton, had drunk camel's milk or cow's milk, coffee from Hodeida or coffee from Mocha. Many of the evidences are likely to be neglected in the haste to get blood-pressure determinations or from the pains necessary in taking pulse-tracings. I refer to such signs as are furnished by the figure, position, gait, breathing, color, cough, expectoration; by the condition of the stomach, liver and kidneys; by the history of the effect of exertion of various kinds, brief or continued; and by careful if simple tests of the effects of different efforts upon the general signs as well as upon the heart-dulness, apex-beat and frequency and character of the pulse. Constant study of such signs in all kinds of cases will give information that instruments are not likely to replace.

The importance of the heart muscle, long neglected, has been recognized and investigated for about twenty years, but the most thorough and pains-taking work still leaves many things obscure. This is especially true of certain insufficiences not primarily valvular. Some early work of the Leipzig school suggested that chronic myocarditis would be disclosed in certain cases of this kind by sufficiently exhaustive methods, but in many cases the results have been disappointing. The discoveries in cardiac anatomy and physiology to be mentioned later, and the novel histologic revelations of Aschoff and Tawara now hold out the hope that in some at least of these cases lesions of conducting fibres, otherwise trifling in size and position, may be found. At all events, the subject is one of the most inviting now open to pathologic anatomists.

While the valvular lesions of the heart are rapidly becoming more accurately known, and while we are about to start on a new road in the study of muscular disease, we are also making a beginning at the understanding of some other cardiac phenomena that have been relatively neglected although they have impressed themselves on language and literature and have engaged the efforts of some of the most competent modern clinicians from Traube to Riegel. The layman has long known and as long has feared the variations of cardiac rhythm—the palpitation, stopping, turning, tumbling and flopping of the heart. Feared them more, in fact, than he did an edema or cyanosis, or even a cough and expectoration. We have neglected them partly because, even if we do find these alarming or annoying symptoms in cases of organic disease, we also find other signs much more significant to us—albuminuria, edema, dyspnea, and especially physical signs. The irregularities, on the other hand, are likely to be found and still more complained of among neurasthenics, dyspeptics and those beginning to give way from arterial degeneration—people who have been too little considered worthy of careful investigation, either as biologic problems or as fellow beings whose "Weh und Ach" are worth relieving.

Among the numerous disturbances of rhythm we find certain kinds so striking that they have long excited more or less attention—so-called intermission, dropping of beats at regular intervals, sudden changes of rate, remarkably slow rate (often passed over with the statement that "Napoleon had a pulse of forty, and therefor—"), or actual absence of apex-beat and pulse or many seconds or even longer. Interesting and curious as these things have been, it was useless to do more than speculate about them, until recently, be-

cause we knew too little of the physiology of the heart's action—we were literally still in the condition of the pious Fracastorius in the 16th century, who believed that God alone could comprehend the nature of the heart-beat. And yet we are fully alive to the fact that the heart is only part of the circulatory apparatus; that an alteration of any part must affect, more or less, every other part; that an irregular pulse might have an injurious action upon the heart and for that reason, if no other, deserves careful investigation. Strangest of all, we did not have even a complete anatomic basis for our physiology. Though the arrangement of the heart muscle was studied by some of the most renowned anatomists from the time of Lower and Malpighi, so complicated is it that even now expert workers like J. B. MacCallum and Keith can still feel the joy of discovery in minute but important details. Even more remarkable is the history of the fibres now known as the bundle of His. Until 1893 it was generally supposed that the auricles and ventricles were independent muscles, separated by the fibrous ring. The younger His had taken an important part in the development of the myogenic theory of the heart's action, and this probably helped to delay confirmation of his discovery. More than ten years later, however, it was confirmed by Retzer, Bräunig and Humblet, and still later some details were added by Tawara and Keith. It is hardly necessary before a Wisconsin audience to tell of the brilliant investigations into the function of the bundle by Professor Erlanger. Retzer found the bundle about 18 mm. long, 2.5 mm. wide and 1.5 mm. thick. According to Tawara, that is only part of an extensive series of fibres, beginning in the septum of the auricle, forming a node just above the fibrous septum and later dividing into two legs which pass down the ventricular septum and, breaking up into fine arborescent fibres, the fibres of Purkinje, pass off to all parts of the ventricle, under the endocardium, at first surrounded by connective tissue, finally fusing with the muscle fibres. The most recent investigator, Fahr, makes the bundle 40 mm. long, coalescing with the heart fibres at both ends. Keith rather confirms Tawara's findings, but he also finds that in mammals the conducting fibres are more like muscle fibres, whereas in lower animals he finds differentiated fibres beginning in the veins and running into the auriculoventricular bundle. These latter results are interesting in connection with Erlanger's view of the similarity of function of the bundle and ordinary heart muscle. According to Tawara and Aschoff, the heart muscle is not to be considered as made up of fibres, but rather as a syncytial tissue. This goes far to explain some of the remarkable qualities of the organ, to which I shall have to allude again.

The question whether the peculiar action of the heart is myogenous or neurogenous is definitely settled to this extent: there is no cardiac center as there is a respiratory center, in the brain. Both vagus and accelerators affect the heart, but not in what might be called its routine work. The muscle itself is capable of automatic rhythmic contraction. These important facts are proved, 1st, by the beating of the heart in embryo before it has any nervous structures in it, and 2nd, by the transmission of impulses in any direction, in pieces of muscle cut out of the heart even in zig-zag. As Erlanger and Blackman have shown, all parts of the heart are rhythmic, all parts conduct impulses, but the auriculo-ventricular bundle and its branches conduct more perfectly than the others, and are perhaps endowed with greater automatic rhythmicity. But the subject is not yet settled. While it is certain that nerves are not necessary to the functions of contraction and conduction, it is too early to assert that aside from the vagus and accelerators the action of the heart is purely muscular, or that what nerve tissues are there are purely sensory. It may be that the nervous network Tawara found around His' bundle is sensory, but that remains to be proved. Though the isolated heart can beat, a heart that has stopped beating can be revived by accelerator stimulation. The fact that contractions can be excited by tension, in the walls of the heart or in the coronaries, may be explained either by muscular or nervous theories. But for the adult heart it hardly seems possible the action is so simple as in the vegetative life of the fetus or in cut-out strips of muscle. The varying, sudden demands upon the heart, and its wonderful response to these, indicate a highly specialized organ. This would seem likely to be accompanied by specialization of tissue to even a greater extent than occurs in the heart fibres. Speculation, however, is not in order at this time.

As to the dynamics of the heart muscle, Howell, in his Harvey lecture, has stated the present condition of the problem with his usual lucidity, and I cannot do better than quote some of the paragraphs that bear on the immediate subject.

1. "The heart possesses within itself a store of energy-yielding material, such that it may continue to give many hundreds or thousands of contractions after its supply of nutriment has been cut off."

2. "Each contraction, whether caused normally or by an artificial stimulus, is maximal, and therefor, probably, uses up all the energy-yielding material which is at the moment in an irritable con-

dition, that is to say, in such a condition that it may be acted upon by a stimulus."

3. "The amount of this material in irritable form is nil during the phase of systole, but increases in amount during the phase of diastole. We know, for example, that if stimulated just at the beginning of diastole the heart muscle gives a small contraction and that the contractions which may be obtained later by artificial stimulation increase in extent the farther the diastole has progressed."

For a clinical basis we may assume as proved that the heart as a contracting organ is composed of two parts, the auricles and ventricles, connected by a narrow band of peculiar muscle tissue; that the impulse to contraction begins normally at the sinus venosus, is conducted by the muscle fibres into all parts of each upper and lower half, and from the auricles to the ventricles by His' bundle. An impulse may begin in any part; it may be conducted from ventricle to auricle as well as from auricle to ventricle. The conduction can be interrupted in any part by disease, or, as in experiments, by cutting or compressing.

The essential functions of heart muscle tissue are important to bear in mind in studying clinical phenomena, though they are not always easy to distinguish. They are: automatic stimulus production; conductivity; irritability; contractility. Engelmann, to whom we owe so much in the study of the heart, has invented some terms that are beginning to appear in medical literature and should perhaps be mentioned here. By "chronotropic" influences he indicates those affecting the production of motor stimuli. They may be positive or negative, the former accelerating motor stimulus production, shortening the period of stimulation and increasing the rate of the beats. Negative chronotropic influences slow stimulus production, lengthen the period of stimulation, and lower the rate. They may be primary or secondary, the former affecting stimulus production directly, the latter being concerned when the rate is altered on account of changes of conduction or irritability. "Dromotropic" influences affect conductivity, and may be primary or secondary. "Bathmotropic" influences affect irritability, and are spoken of as positive when the irritability is increased. "Inotropic" influences affect contractility in positive and negative senses.

With these facts we can study the cardiac arhythmias very much better than we could with the physiology of only a few years ago. The work of interpretation was begun by Mackenzie, Cushny, Wenckebach, Hering Hoffmann, and D. Gerhardt, and has been continued

by many others. Numerous details have still to be investigated. For their elucidation not only clinical observation, but more especially physiologic training and collaboration between clinic and physiologic laboratory are necessary. It must be remembered, however, that in many respects good clinical observations disclose natural experiments, and that, as Erlanger well says, "the crudeness of experimental methods" do not conform entirely to "the subtle inroads of disease." The essential part of the clinical investigation consists in the study of tracings of the arterial and venous pulses.* Tracings of the apex-beat are also used, but are generally less instructive than those of the radial or carotid. Those who remember the disappointment that followed the early use of the sphygmograph will probably wonder at this statement, but the conditions and objects are very different. Then the effort was to get a diagnostic curve for a valvular lesion, or for arterio-sclerosis, or for any one of a number of desiderata that were quite beyond the scope of the methods and the knowledge of the time. Now we draw limited conclusions from departures from norms the causes and characteristics of which we are rapidly learning. There are several instruments that can be used for the purpose. Physiologists, of course, have their own, too large in general for clinical use, but the convenient polygraphs of Mackenzie and Jaquet furnish tracings quite adequate for the physician.

Arhythmias may be classified in different ways. A scientific method would be based upon place of origin, or on the primary heart muscle function involved, but for clinical purposes there are advantages in describing groups according to certain broad features and assigning, so far as possible, their clinical relations.

Respiratory Arhythmia. This is one of the commonest and simplest arhythmias, but is rarely as striking, clinically, as some others. It is the infantile type of arhythmia of Mackenzie. The pulse becomes more frequent in inspiration, slower in expiration. It is best seen in not too quiet breathing, as in sleeping children. If it occurs in superficial respiration, or while breath is held, it indicates an increased irritability of the nerves concerned in its production, especially the inhibitory fibres of the vagus. It is recognized by its relation to respiration, or, if it occurs without respiration, by its rhythmic increase and decrease. The change in rate depends on varia-

*The jugular tracing reveals the processes in the right auricle. Zwoadmaker and Winkowski have shown that tracings of the left auricle can be taken from a balloon sound in the esophagus, but this is hardly of clinical value.

tion of the length of diastole. The venous pulse is not altered. It is seen in convalescents, in neurasthenics, in brain disease and in meningitis. Hering saw it in two patients with mitral disease after the administration of digalen or strophanthus, with slow pulse. Most observers agree that it is not an evidence of cardiac weakness, but is of extracardial origin. Atropin stops it, adding to the proof that the inhibitory nerves are concerned in its production.

EXTRASYSTOLE ARHYTHMIA. Among the most frequent and striking cardiac irregularities are those now known to be due to the phenomenon termed extrasystole by physiologists. The relation was shown by Cushny and Wenckebach independently. Before that the clinical phenomenon was called by various names, such as "early," "abortive," "premature," or "frustrate" heart-beat. The so-called intermittent pulse is most frequently due to extrasystole, but it can also be caused by disturbance of conduction or irritability, or by lack of stimulus production.

As the name indicates, extrasystoles are systolic contractions or efforts that do not belong to the normal rhythm. They may be few and far between, or single at regular intervals, or follow each other in large or smaller groups. Rarely they occur about or in the normal position, with a diastole of normal length, but most frequently they are premature, with the striking feature of an abnormally long or "compensatory" diastole, so that the two beats, normal and extrasystole together, take the same time as two normal ones. In some cases of auricular extrasystole the diastole is of average length, in some rare cases of interpolated extrasystole it is shorter. The differences in the position of the extrasystole in the curve, and the variations of diastole, depend upon the seat of origin and the time of occurrence. They can arise in any part where normal contraction begins, i. e., the great veins, auricles, auriculo-ventricular junction or ventricles. Beginning in the ventricles, they can pass backwards into the auricles, and so cause most serious disturbances of rhythm.

The subjective symptoms of extrasystole, under the other names, have long been known. The contraction is often felt as a thud in the chest, sometimes associated with an unpleasant sensation, or as a stopping, flopping, or tumbling of the heart, often followed by an abnormally strong beat.

Objectively, there may be a complete intermission of the pulse, a "dropped beat," so that extrasystole is a not uncommon cause of a bradycardia in practice, or a more or less faint pulse can be felt. On examination of the heart at such a time, there can often be felt a

strong shock, and on auscultation a "loud booming sound" as described by Hochhaus and Quincke, but with little or no pulse at the wrist. Tracings show a wave more often than the pulse can be felt, but often only as a small wave, sometimes mistaken for a dicrotic elevation. The source of the extrasystole is indicated by the venous pulse-tracing. The details of the interpretation can hardly be made clear without specimens, but the subject can be better understood from Wenckebach's description of the mechanism.

Three factors are concerned, the force of the extrasystole contraction, the quantity of blood in the ventricle, and the blood-pressure in the aorta. These in turn depend upon the time of occurrence of the extrasystole. In the beginning of diastole, soon after the previous systole, the strength of the extrasystole is slight on account of insufficient recovery of the contractility of the heart muscle; there is also very little blood in the ventricle, but the pressure in the aorta is greatest. It is hardly possible to overcome the obstruction in the aorta, open the semilunar valves and send a wave to the periphery. The extrasystole will therefor only cause a first sound, no second. If the extrasystole comes later, the ventricle has recovered its contractility and contains more blood, the pressure in the aorta is less. In the extrasystole the semilunar valves are opened, there is a wave in the aorta, a second sound, and the extra pulse-wave appears in the sphygmogram. If it is near the normal time the wave may be of ordinary force, and palpable at the radial, but the pulse will seem premature. Extrasystoles are of great variety, but very often in the same case there will be a similarity of type.

The cause of extrasystole is still obscure. Mechanical irritation of the heart muscle is supposed to be an important factor. So we see it under the use of drugs that increase the irritability of the muscle, like digitalis and calcium. While it is generally denied that it can be due to nervous irritation there are certain facts that still require elucidation. Thus, A. Hoffman records the case of a hysterical boy in whom extrasystole was brought on by mental exertion. In such a case vaso-motor influences might be concerned, with rise of pressure. Kochmann has made some experiments showing that extrasystoles can be induced by irritation of the endocardium and pericardium, as was already known, but not if the surface was anesthetized by cocain. On the other hand, it required more intense irritation of the myocardium to produce extrasystole, and this was not inhibited by cocain. Kochmann thinks the irritation begins in the sensory nerves. But the process is probably always of cardiac origin, and so its complete elucidation is much to be desired.

The results of extrasystole on the circulation are stasis in the veins, diminished pressure in the arteries, sometimes associated with symptoms of brain anemia.

At present its clinical significance is rather general, indicating an irritable condition of the heart. It can occur at any age but is less common in early life; in apparent health and in severe illness; in the robust and in the weak. Every case must therefor be a study in itself.

Wenckebach classifies cases into groups. In the first he places patients without evidence of organic heart disease or heart weakness, but who reach advanced age without other signs of heart disease than the extrasystole. Probably these are people who with abnormally irritable hearts, just as there are animals (dogs and horses) that get extrasystoles more readily than others, or just as only a few frogs react to Goltz tapping. That some neurasthenics are included in this class is a matter of course.

In a second group extrasystoles are set up by causes outside of the heart,—toxic or otherwise. So, in cases of gastric or intestinal disease,—constipation, intestinal parasites,—extrasystole may occur, and cease with the subsidence or removal of the local disease. In infectious diseases, especially in convalescence, it may occur, like other evidences of irritable nervous weakness of the heart. Perhaps the bradycardia of convalescence favors the extrasystole.

In a third group there is some disturbance of circulation without severe disease of the heart itself. High blood-pressure may cause some of these. In arterio-sclerosis extrasystole is especially frequent but it also occurs in persons with low blood-pressure, and not always in diseases with high-pressure, as nephritis. Extrasystole from change of position belongs in this group.

In a final group the patients have heart disease, which may be of the most diverse kinds. But the same disease does not always induce extrasystole, and this is especially true of acute myocarditis.

Wenckebach well sums up the subject by saying that the physician must not consider every case with extrasystole serious for that reason, but in each one he must think it worth while to search for heart lesions, and also other causes, outside the heart, that might act directly or indirectly. The removal of such causes is obviously indicated.

The prognosis depends upon the other conditions, in most cases, but it may be mentioned that extrasystole in the early stage of acute disease should excite attention to the possibility of serious danger.

The Bigeminal or paired pulse, since the time of Traube so curious a phenomenon, is most frequently due to extrasystole. Wenckebach, who early insisted upon other modes of origin, now interprets some cases of bigeminy by heart-block. In fact it seems, as he shows by several cases, that the "independently contracting heart has a marked tendency to beat in a particular way. Each time that the ventricles contract, one or more systoles follow, as if the first systole was the cause of the second, etc." Wenckebach does not explain the cause of the phenomenon, which must be determined experimentally. He, however, advances some interesting details indicating that there is a condition of extremely great irritability present, and cites one of Gaskell's experiments to show that the ventricle can respond to a single stimulation with one, two, or even a series of contractions. He also had the good fortune to encounter a case in which it appeared that the double or multiple action could originate at the normal seat of rhythmic activity, so that the possibility of a bi-, tri or polygeminy of the whole heart is apparently demonstrated. The term polygeminy is warranted because groups of 8, 10, 12, and even 20 such systoles were observed. The subject involves fundamental principles of cardiac physiology, and its further development will be followed with great interest. Wenckebach is inclined to refer the condition to change of contractility. It occurs in people with sound hearts and normal circulation, and in nervous and hysterial individuals especially following psychic effects. Perhaps the heart can be put in the peculiar condition not only by degenerations and toxic processes, but also by nervous influences.

It has been said that extrasystole can produce a form of bradycardia. It can also produce tachycardia, as several observers have reported. Such cases, as Hering points out, can only be recognized when it is possible to get good venous and arterial tracings during the attack.

Fibrillary Contraction. An important but obscure cause of arhythmia is the fibrillary contraction or "fluttering of the heart" into which the muscle sometimes falls. It is well known to experimenters, but the possibility of recognizing it in man has been questioned. Cushny and Edmunds, however, have reported a case in which a patient had a "paroxysmal arhythmia with marked acceleration of the heart." "It was shown that the irregularity was due to irregular discharges of impulses and not to defects in the contraction of the ventricles, which appeared to respond to the impulses received. Experiments on dogs showed that a similar condition could

be due to fibrillary contraction of the auricles. In the dog it occurs occasionally from peripheral irritation, and it is quite probable that this gives rise to reflex inhibition of the vagus center." The clinical possibility should be borne in mind, especially in view of the suggestion of Hering, based on experiments, that fibrillary contraction may be a cause of suddent death from cardiac failure.

PERPETUAL ARHYTHMIA is the name given to a very interesting condition which has been the subject of much investigation, but is still very obscure. There are longer or shorter periods, sometimes months, with irregular and unequal pulse. In extrasystole arhythmia the ordinary rhythm of the heart can generally be made out through the irregularity, but this is not so in arhythmia perpetua, which in extreme cases is sometimes called delirium cordis. And still it is doubtful whether it is essentially different or only the result of a quantitative increase of the other forms. In milder cases it resembles the infantile arhythmia and sometimes, in severe forms, typical extrasystoles are seen, or sometimes bi- or trigeminy among irregular waves. Its elucidation is incomplete, but it is interesting to consider some of the views that have been expressed.

In all of Hering's thirty-seven cases there was a positive venous pulse, to use the older name for what is now spoken of as a ventricular wave, the chief elevation of the venous pulse occurring in ventricular systole, instead of in diastole. This is, of course, an important sign of tricuspid regurgitation, but Hering could not produce arhythmia by artificial tricuspid regurgitation. He thinks the irregularity can be due to extrasystole, or to abnormal time of origin of the primary stimulus. The contraction can arise, apparently, from the auricle or the auriculo-ventricular bundle, but the high pulse-rate in some cases seems to rule out a ventricular origin.

Wenckebach makes the interesting and ingenious suggestion that the permanent irregular pulse is due to block at the sino-auricular boundary, analagous to the classic Stannius ligature. He confirms the existence of auricular arrest already noted by Mackenzie. The latter with his usual keenness of observation had observed that the disappearance of the presystolic accent in mitral stenosis, when the condition was getting worse, as shown by congestion, edema and other unfavorable symptoms, was likely to be associated with irregular pulse with loss of the auricular wave, ventricular rhythm, and auricular paralysis. Wenckebach denies the influence of degeneration of the auricular muscle and of auriculo-ventricular extrasystole. He thinks the venous rhythm fails either from loss of muscular power

or of conduction in the fibres running from the veins to the auricle.

Theopold has recently made an interesting study of sixteen cases of perpetual arhythmia from D. Gerhardt's clinic, in the course of which he devotes special attention to the character of the venous tracing. He believes that instead of tricuspid regurgitation, there is complete auricular arrest, as shown by the marked diastolic collapse of the vein. This was considered by Skoda a sign of auricular arrest. Experiments on animals seemed to confirm the conclusion. Theopold points out that these observations make clear the impossibility, in many cases, of distinguishing between tricuspid regurgitation and auricular arrest. In marked cases the diagnosis is easy. The great distention of the veins, the swelling of the neck, and the liver-pulse point to regurgitation. If only the jugular bulb pulsates, in systole, and especially if it pulsates only when the arm is in certain positions, regurgitation is hardly likely. Combinations, of course, may occur and leave the diagnosis in doubt until the progress of the case reveals the true state of affairs.

Permanent irregular pulse is probably always of cardiac origin. All observers have found it in cases of valvular disease, especially mitral, and in senile arterio-sclerosis with myocardial degeneration. D. Gerhardt has seen it in a case with normal venous pulse in chronic nephritis, with high pressure (cited in Theopold's thesis). Hoffmann saw it in a patient with "goiter-heart" without tricuspid insufficiency. Compensation may be long preserved. Dilatation is not always present. Digitalis, while slowing the pulse and making it more uniform, does not wholly remove the irregularity. Atropin does not stop it, even when by the action of the drug the pulse-rate is doubled (Hering).

Heart Block. Some of the most interesting and important alterations of rhythm are due to more or less complete interference of conduction in the auriculo-ventricular bundle. The phenomena of block were known to physiologists for many years, but the exact relations could not be understood until the demonstration of the bundle by His and its confirmation by others, as mentioned before. By cutting the bundle in the living heart, or still better, by compressing it, as in Erlanger's beautiful and convincing experiments, the phenomena of heart block are brought on, and by gradual increase of pressure the block will occur at various intervals. When the block is complete there is dissociation of the ventricles and auricles. The auricles may beat at their former rate, or may even be accelerated, as from the action of certain drugs, but the ventricles always have an

automatic rhythm, at a very slow rate, usually about thirty. At the time the block occurs the ventricles may be arrested for long periods.

The condition is recognized clinically by the failure of ventricular systole, the auricle still beating. In some cases the difference in the rate of the jugular pulse, two or three times that of the radial artery, can be recognized by inspection. This was very striking in one of Stokes' original cases. But in perhaps the majority of cases the venous phenomena are not so obvious. Tracings are necessary, and in some cases it is difficult even to obtain them, owing to the weakness of the pulse or the peculiarities of the neck. Fluoroscopic examinations can also show the dissociation, but are obviously less available than tracings in many cases, and especially in the attacks in which the patient is first seen. The radial tracing, aside from the infrequent rate, may not show any anomaly, but in the paroxysms that occur in some cases it may exhibit the most remarkable irregularities of size and rhythm.

Heart block is seen temporarily, as in convalescence from influenza (Mackenzie), rheumatism (D. Gerhardt). It occurs under the influence of digitalis, the rationale of which is not clear. At first the asystole was ascribed to central vagus irritation, but Hering showed that digitalis can inhibit conduction without lowering the auricular rate, so that a specific action upon the conducting fibres seems probable.

The most important and clinically interesting examples of heart block are seen in the remarkable condition known as Stokes-Adams' disease (or syndrome or symptom-complex, as some prefer). In this, all varieties and degrees of block may occur, and especially, along with a permanent slow pulse, there are paroxysms of syncope, epileptiform or apoplectiform attacks, Cheyne-Stokes' breathing, great irregularity of pulse, or even none at all for many seconds or minutes. So many valuable contributions have been made recently to the clinical and physiologic features of the condition that it is not necessary to enter into details.

In the cases so far reported, since the relations were known and looked for, disease of the bundle of His has usually been found. Owing to the fact that the bundle is in a position that is generally not carefully examined, even by the method of making numerous slices of the muscle in the search of myocarditic changes, negative results must be viewed with doubt. Gummata are relatively frequent. Scars from endocarditis or myocarditis, tumors, and fatty degeneration have also been noted. As an evidence of the difficulties in such

cases, I may mention a characteristic one of my own, not yet reported, in which for several months there was marked muscular insufficiency without evidence of valvular disease. The permanent pulse of about thirty for more than a year, was varied during several months by frequent attacks of syncope and convulsions, and in the attacks the pulse would drop to sixteen in the minute and sometimes fail for as much as half a minute. The patient dropped dead after some six months of fair health except for the pulse of thirty and signs of heart-weakness on exertion. The valves were intact, the extrinsic nerves likewise. The muscle in general was remarkably free from changes, microscopic as well as microscopic, but over the left branch of His' bundle the endocardium was fibroid, and small fibroid areas extended into the branch. The change seems too slight to explain the condition, but in addition, the artery of the branch is the seat of a marked endarteritis. I have thought there was a partial block due to ischemia, increased at times by spasm of the artery. However, in such cases it is necessary to get more tracings than I was able to get, in order to show the degree of block. Moreover, though I have had several hundred serial sections cut and stained, and have examined very many of these, the examination of other parts may reveal some small but important lesion.

ALTERNATING PULSE is a condition in which large and small pulse-beats alternate, with or without a higher rate. It was described by Traube in 1872, but its exact study began thirty years later, under Hering and Wenckebach, followed by Volhard and Rihl.

As was intimated in connection with extrasystole, an alternation can be due to that condition. Hering calls such cases pseudo-alternans. Careful examinations show other and different types, and indicate different causations. According to Hering, if the smaller pulse is premature it may be due to cardiac bigeminy. If the intervals are equal the condition may be bigeminy or alternation. If the small pulse is late, it is due to alternate action. The alternation in man is probably always ventricular. Auricular alternation is not certainly known but may occur.

The clinical recognition depends upon detecting the alternation of size of the pulse. It has probably been mistaken for dicrotism in the past. If the difference is slight, it may not be palpable, nor show distinctly in the tracing. In such a case it is well to follow Hoffmann's advice and compress the arm gradually with the band of a blood-pressure apparatus while the tracing is being made. The alternation will then appear.

Alternating pulse is observed in various conditions, such as nephritis with high blood-pressure, cardiac insufficiency, disturbances of conduction, mitral stenosis. Mackenzie has seen it in angina pectoris. There is often a relation between the frequency of the pulse and the degree of alternation, as Hering and Rihl have noted; the higher the rate the more distinct the alternation. In some of Hering's cases the alternation was only present with a rate of ninety or more. Hering suggests that something, such as a disturbance of nutrition, changes the condition of the heart. If strong enough, this can excite the alternation, but if too mild the alternation only appears when the rate is increased. Cardiac weakness seems to be always present in these cases, but just how much in general, or in any given case, cannot yet be stated.

HEMISYSTOLE AND ALTERNATING SYSTOLE. The occurrence of a hemisystole has been questioned, but Wenckebach has recently given a very clear exposition of the possibility. Most cases previously reported are probably cases of extrasystole or heart block. In hemisystole occasional or alternate beats are missed by one ventricle. In alternating systole the ventricles alternate. Langendorff, in Stannius' experiments—ligating the sino-auricular region—saw hemisystole in which the right ventricle had twice the rate of the left. Wenckebach points out that in delirium cordis all the systoles do not seem to affect all the heart. In reality this is only the exaggeration of a normal process, the apparent synchronism of the ventricles, as Frederick says, being simulated by the great rapidity of the spread of contraction. Trautwein thinks hemisystole is due to the action of intracardiac nerves, altering the automatic regularity of the heart muscle in different directions. The physiologic importance of the subject exceeds its clinical importance.

TACHYCARDIA occurs from many different cardiac anomalies, such as increase of irritability, or of stimulation and from extrasystole, especially of ventricular origin. Mackenzie showed that it might be due to a series of extrasystoles, as shown by the venous pulse, and this has been confirmed by Hirschfelder. However, it is sometimes due to causes seated above the ventricle, either in the auricle or the sinus.

The most remarkable cases are those known as paroxysmal tachycardia, in which there is a sudden doubling of the rate, or sometimes a double doubling, with an equally sudden and great fall in the same proportion. The pulse is usually regular in the frequent stage, even if it was irregular before. The blood-pressure is generally low.

Subjectively, the patients often have peculiar sensations, as

of a shock or blow, or a feeling of apprehension, or precordial distress. Sometimes there are similar unpleasant sensations following the attack.

The etiology is vague. The patients are often neurotic. Sometimes toxic influences can be brought into relation with the condition, such as atropin, coffee, alcohol or tobacco. Sometimes fright brings on an attack, and it occurs in Basedow's disease without noteworthy exciting cause. It has been seen in various cerebral diseases and in cases of lesion of the vagus in the thorax. Pal saw tachycardia in a case of apex pneumonia with swelling in the lymph glands of the neck and mediastinum, and suggested irritation of the accelerators. In a striking case of mine, attacks came on without obvious cause in a patient with dilated stomach with fermentation on admission. The attacks ceased with copious eructation, but distention with air, even to a painful degree, did not excite attacks, even while the fermentation continued. The attacks subsided under treatment of the stomach. There was also considerable arterio-sclerosis. Schlesinger suggests that the condition is due to simultaneous paralysis of inhibitories and irritation of the accelerators. It is probably complex, and still requires much more investigation.

In the foregoing I have endeavored to place before you a point of view in cardiac pathology that promises an important future. If in the course of my remarks the impression has been gathered that the subject is confused, the impression will not be wholly wrong. It is not only difficult to gather a clear idea of cardiac arhythmia from hearing or reading a description of it, but it is difficult to decipher many of the phenomena encountered in actual practice. But with experience in the taking and interpretation of the necessary tracings, many things become clearer, as in all technical matters. Many details are so little understood that even an expert may be unable to explain them, or still more, may give a wrong interpretation. But the most frequent types are easy to recognize, and serve as guides to the exclusion of others. Much difficulty is caused by combinations of irregularity. So, for example, extrasystole is often combined with other forms.

Regarding the prognosis of the arhythmias, a good deal has been said and more can be surmised. It is not enough to decide that the disease is functional, for a functional disease may involve serious danger. In some cases the heart is the primary seat of disease, and so causes the functional anomaly. This is true in extrasystole, perpetual irregular pulse, ventricular asystole, heart block and alternat-

ing pulse as a general thing. In some of the other irregularities the cardiac abnormality is the result of some other, perhaps distant lesion or functional disturbance. In some cases the part of the heart affected can be stated. In others it can not. When we remember how recent the subject is, and how few, comparatively have been concerned in the work, and when we think of the great advances that a few years have brought in some branches of the subject, the prospect for further additions is most promising.

The special causes of the anomalies can often not be demonstrated. In a few words, the study of cardiac arhythmias will rarely give us in a short time a diagnosis we could not have made without such methods. But it will add much to our knowledge of disease phenomena, and to the accuracy of our investigation of the individuals we have to treat in practice.

As regards treatment, lack of time and the nature of the subject forbid me from going into detail. If there is one part of therapeutics in which individualization is more necessary than others, it is in diseases of the heart, organic as well as functional. Some general features, however, may be considered. In both classes of cases preventive treatment is the first need, that is, the prevention of sequels that can be warded off. Causal treatment is rarely applicable, but by improvements in that, as by an extension of specific therapy of acute infectious diseases, the heart may be a decided gainer. At present more is to be expected by guarding the heart. We have recently made an advance in diagnosis, in that we no longer conclude from a murmur in acute illness that the patient has endocarditis. But do we know as well what does cause the murmur, and that the heart will regain its previous condition without further care? How often do we see cardiac weakness, even valvular lesions, months after typhoid fever or pneumonia, in such cases. What we need, then is a treatment based on the possibilities; a careful observation of heart function, with rest and other treatment as may be indicated in the individual case. One will ask, as do patients, how long the treatment must be continued? Evidently this can be determined only by experiment; by gradually increasing the work of the heart under careful observation of all the signs.

Drugs must be handled as patients must be—by individualizing them. Since they are used chiefly for their effect on function, not only must the mode of action of the drug be known in general, but also the actual preparation applied in a given case. In the case of the most important heart drug this is often not done. Digitalis prepara-

tions, we are told, vary by several hundreds of times in strength, yet how often is a single preparation tried and abandoned for a drug regarding which we have less knowledge, and the purity of which has no stronger guarantee.

In the treatment of the irregularities, the main thing is to abstain from cardiac remedies until the complete diagnosis has been made. In some cases, in fact, the most important thing is to stop medication, as in patients with compensated valvular lesion who have digitalis irregularities. In other cases indirect treatment is necessary, as in cases of gastric or intestinal reflex arhythmias, arteriosclerosis, and neuroses of a general kind.

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ORIGINAL ARTICLES.

ON TRACHEOTOMY IN EMERGENCIES
(In Laryngeal or Pharyngeal Stenosis).

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In choosing this subject, I am prompted by several motives: my experience has been varied; I have twice been a sufferer from diphtheria; I have performed the operation during epidemics of diphtheria, as well as in other diseases, and studied it both in private and in hospital practice. By this experience and by study of the literature I have noted many failures by the classic operations, have made efforts to ascertain the causes, and to devise means with which to combat them.

The world owes a debt to von Behring, the discoverer of antitoxin. The value of this serum is well known to the profession as possessing the power to save even desperate cases, provided it is given time to permit its power to assert itself, and this often can be gained only by immediate relief of the existing stenosis.

Inasmuch as intubation demands great practice and skill and special instruments, I prefer tracheotomy for the occasional surgeon. The many difficulties of the operation will be mentioned only in so far as they refer to the recommendations herewith made.

The chief causes of non-success are: delay; wrong diagnosis; faulty judgment; delayed consultation; poor assistants; unsanitary conditions; inability of patient to stand chloroform narcosis, owing to physical condition; lack of skill in surgeon; the delicate structure of the tracheal rings which may be cut unawares and the opening even continued to the oesophagus; the looseness of the tissue, and the slippery, narrow trachea. Of the anatomical relations of the trachea it is important to recall that the cricothyroid artery above, the isthmus below, and the anterior jugular veins on each side, leave in the median line a short, narrow space, adapted for an orderly operation, the cricoid being in the center, but slipping out of the wound line by a twist of the head. It is therefore necessary to carefully maintain the median plane, especially so because when standing on one side of the patient, one sees the proximal half of the wound at a more acute angle.

Transverse incision through the crico-thyroid membrane may cause occult hemorrhage, and will fail to accomplish certain desirable results, namely: admission of the largest canula possible (of absolute

importance if a being is to recover from an edemic condition), and retraction of the wound by sutures around the neck, as is necessary if no canula is at hand.

Difficulties caused by the membranes are very important, and I have found no other explanation by the authorities save that the membranes may become aspirated and so clog the bronchi, or that the knife may force them against the posterior wall and the canula so be inserted outside the membranes. My personal explanation is: that before the operation the membranes lay upon the wall; when this is cut, the air pressure invaginates them before the edge of the knife

can even reach them. If this is the real explanation, it will have a great influence on the technique of this operation because it will be necessary to invent a totally new operation.

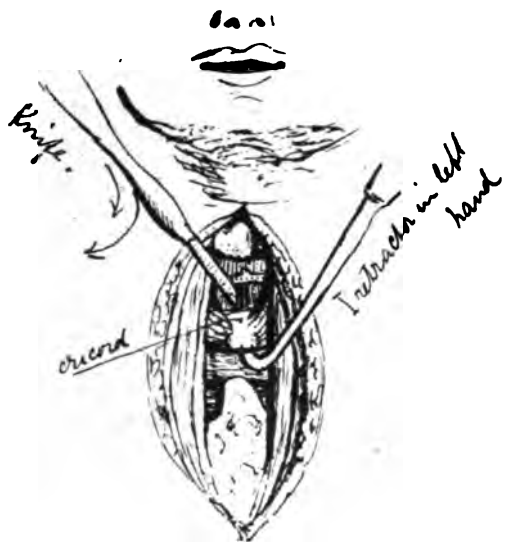
Owing to the difficulty encountered, and the attendant danger to the operator, I cannot recommend the sucking out of the so-called aspirated membranes by catheter, though I have done it. Often the phonetic apparatus is harmed by cutting from below upwards. Many failures, therefore, originated from minor details of the operation itself, others thereafter from infection, emphysema or diphtheritic paralysis, all of which may possibly be avoided.

By experience and careful study, I have originated a new operation for the purpose of avoiding the above named difficulties, and of performing the entire operative technic in less than three minutes with plain instruments and with less risk than before. I have also

in part found means to prevent some of the post-operative accidents.

My method is intended for emergency cases. I condemn the "dare-devil plunge" (as likely to injure the phonetic apparatus or cause death from occult hemorrhage), and all instruments designed for that purpose.

The instruments I use are: three single-pronged retractors, a narrow bladed knife, a herniatome, six artery forceps (pocket instruments), and canula. Chloroform should be used if possible. The head should be drawn far enough over the edge of the table so that the nape of the neck hangs freely over a three inch roll that is placed under the neck and fixed to the clothing at the shoulders by safety pins.



Cricoid to be cut from above-down and from within-out.

The hanging head in an unconscious person will retain itself in the median plane. The surgeon places himself behind the head in the median plane. When the assistants or the anesthesia are not to be trusted, the patient may be placed in the same way on a couch, the surgeon sitting directly behind and grasping the head between his knees.

Operation: Find the cricoid prominence, stretch the skin, make a deep incision from below upwards, of two inches, the cricoid in the center. Spread the cut with the first and third finger, and find the cricoid with the index, then hook it in the middle at the lower border with a retractor, which now transfer to the left hand. This retractor should not be removed until the canula has been inserted. Lift cri-

coid and see the tissues tend to slide away. With edge and handle, clean the tissues away, cutting only in the median line between the jugular veins. Immediately clamp them and any other blood vessels appearing, whether cut or not, but do not ligate.

When the cricoid is clean, insert knife under and close above it, so eluding the phonetic apparatus and the crico-thyroid artery, and cut the membranes, cricoid and fascia from within out; thus the inrush of air will not invaginate the membranes. With the herniatome, prolong the cut from within through the first tracheal ring only so far as to feel it separate, without cutting through the overlying fascia and thereby endangering the isthmus. If there is bleeding after the opening of the trachea, pull the patient over the edge until the head hangs low, in order to avoid aspiration of blood. Place a second retractor, back first, inside the trachea and open cricoid wide. Now the largest possible canula can be easily introduced. First apply to the wound 50 per cent. trichloracetic acid, forming a membrane of acid albumen in which no bacteria will grow, this seals the tissues until granulation takes place and thus prevents infection of the wound, emphysema, etc. Before the patient revives from the anesthetic, antitoxin should be given if necessary; also strychnin in full doses, repeated where called for, and later digitalis substituted. The diet and after treatment should follow the text-books.

As new and original I would designate this in some ways "inverted" operation, as more rapid and safe, especially as to the dangers from invagination of the membranes, by cutting from within out, and the application of trichloracetic acid for a new purpose. Also the importance of keeping eye, hand and wound in one plane by the new position.

CONTRACT PRACTICE.

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This is a hackneyed subject, but always one of live interest, especially to the young practitioners. The neophyte, just out of college or hospital interneship, knows practically nothing of the trials and tribulations about to confront him in the pursuit of his chosen profession. He is apt to regard the perplexities of diagnosis and treatment as constituting his real troubles, but these pale into insignificance when he discovers that, notwithstanding his high ideals, his medical education is but the means to an end, and that end is the gaining of a livelihood. The bread and butter side of the question begins to assert itself. He has plenty of time to cogitate on the subject. Patients are few and far between. He thinks and feels that his

chances of success, of his ability to acquire a lucrative practice, are the equal of those practicing in the same community with him. More often his capabilities are superior to those of his fellow practitioners. His four years' grind in a medical college have been followed by a year or two in a good general hospital. There he has acquired confidence in himself. He has put to a practical test his class room theories and teachings, his laboratory demonstrations, his dispensary training and his observations made in the major clinics. and he knows that he knows. During his vacations he has formed intimate acquaintances with a number of the older practicing physicians and has learned that the majority may have passed as "good doctors" just after graduation.

But the science and art of medicine have progressed in the last decade, and that many, very many of them have not. They practice the art as it was practiced twenty years ago, but the science—they have not had the time nor the inclination to acquaint themselves with its many and rapid changes. Many of them practice surgery after a fashion, but their ideas of asepsis and technique are strongly at variance with the principles taught him by the masters. He finds them lacking in good surgical judgment. They too often, regard surgical rocedures as measures of the last resort and not as a real therapeutic resource. They have even gone so far as to preach that doctrine to the laity and the laity have readily accepted it. In internal medicine he finds their therapeutic armamentarium to consist, in the main, of the so-called ethical proprietaries, regarding the composition and physiological action of which they know nothing beyond the information contained in the descriptive circulars and pamphlets sent out by the manufacturers, and in the veracity of this literature they place implicit confidence. He finds many who are superficial observers and poor diagnosticians.

Is it any wonder that he is self-confident, perhaps even egotistical. "Give me a chance," he says to himself, "I know that I'll make good". But opportunities do not present themselves in a bewildering array. His office is well located and appointed. The town is prosperous and there seems to be the usual amount of illness. The number of physicians in proportion to the population is not excessive, the average intelligence of the community is normal, and Christian Science, osteopathy and other therapeutic heresies are not in a flourishing condition. But notwithstanding all this, the number of his patients is in inverse ratio to his expectations. Then he begins to investigate, and, sad to relate, finds that if he wishes to gain a foothold he must peddle his brains at one or two dollars per annum. He finds his fellow prac-

titioners contracting with various corporations, lodges and fraternal societies, to treat the employees or members, and in some cases the whole family of members, of these organizations at a ridiculously low fee for an entire year.

At first blush the proposition is repugnant to him, then it appeals to his fancy as being the royal road to a large and lucrative practice. He reasons that it will serve to introduce him to the public, and, after the introduction, progress will be rapid and steady. Then he begins to weigh the pros and cons of the problem, and very soon comes to the conclusion that contract practice is the bane of medical existence in his particular community. He begins to agitate the matter in the meetings of his county society and offer resolutions pledging the members not to do contract work, but meets with a sorry response. The best element as a rule he finds to be earnestly opposed to the existence of this evil. The majority of the younger men are practically aggressive in their desire to rid the profession of this reproach to its integrity. But, unfortunately, there are some who, though they decry its evil effects, are loath to give up their contracts. They regard a bird in the hand as worth two in the bush. They are mutually suspicious of their professional brethren—perhaps a previous experience has taught them to be cautious in placing any confidence in the word of honor of another—and are fearful that some competitor may obtain that which might seem to be a slight advantage in the struggle for practice. They also realize that the keen business instinct of the laity has discovered in contract practice a scheme to obtain medical services for practically nothing, and that the laity are, therefore, organizing societies by the score with that feature as the excuse for their existence, fraternalism being utterly subordinate to it. To them it means contract practice or no practice.

His investigation of the subject, in all its manifold phases, leads to the conclusion that contract practice in general and lodge practice in particular are wrong in every way. There is not a single redeeming feature in it.

As a young practitioner in a city with a population of 25,000 where contract practice is in a most flourishing condition, I have been placed in a position to get data from an authoritative source, and my observations and conclusions, herein recorded, are not the product of a too vivid and fertile imagination, but are based on actual contact with the problem in all its various phases.

Contract practice may be defined as "the payment, by agreement, of a certain fixed compensation for an indefinite amount of professional services." In this paper one phase of contract practice will be dis-

cussed in particular, namely, lodge practice or contract work for fraternal societies. This form of the evil is a constantly growing one. It is rapidly invading all classes of society, the middle class, especially. The avarice and commercial greed of a certain class of physicians, the degeneration of professional integrity among them, and the degradation of ethical standards, having made them an easy prey to organizations bent on getting something for practically nothing. The laity are quickly taking advantage of the lack of thorough organization and complete harmony among physicians, and, as a result, all over the country we are seeing the formation of special societies which make it their business policy to obtain medical services at an excessively low annual payment. Other organizations hold out the lodge physician feature as a special inducement to gain a large membership. In this particular community the lodge of eagles is the most forward and aggressive in exploiting this inducement to gain a numerous following. To the reproach of the medical profession they have no difficulty in finding physicians ready to treat the whole family of a member for an annual fee of $2.00. This does not include surgical and obstetrical attendance. At their annual elections there are usually several applicants for the appointment of lodge physician. In their anxiety to receive this appointment these applicants solicit rates openly. Do you wonder that the medical profession is charged with lack of dignity when members if it resort to all the petty schemes, subterfuges and devices of political ward leader, to obtain a $2.00 per annum "job"? Can the handshaking, the button-holing, the treating to cigars and drinks in public houses, the suddenly assumed attitude of jovial good fellowship on the part of the doctor, the hobnobbing with individuals far below him in the social scale and intellectuality, the confidential discussions on the street corners and in saloons, in which colleagues and rival applicants are roundly "knocked" and their mistakes and capabilities held up to public ridicule and censure, have any other than a depreciating effect on the dignity of the profession and the individual? Hardly. Yet that is the usual course of procedure in the struggle to obtain these "jobs".

The question naturally arises, "why should this state of affairs exist"? What should prompt medical men to seek a practice at such an absurdly low remuneration—a remuneration entirely disproportionate to the value of the services rendered? Is it a matter of necessity? In a few isolated instances that may be the impelling motive. It is a notorious fact that, at the present time, fees in general for medical services are exceedingly low and that the annual income of physicians is less than that of the worker in the trades. In most communities

physicians are receiving the same fees received by their predecessors forty years ago. In late years the cost of living has increased by leaps and bounds. The cost of a medical education and the running expenses of the practicing physician are vastly greater than they were twenty years ago. In other fields of endeavor incomes have steadily increased in proportion to the increased cost of living, but the average income of physicians has remained stationary. Is it any wonder then that some members of the medical profession should resort to various contract schemes that will put a dollar earned in the pursuit of their profession in their pockets? In the narrow sense "no", but considered in a broader light such devices are two edged swords which cut both ways. They reduce compensation for services rendered and lessen opportunities.

Another factor is the undeniable fact that at the present time the medical profession is very much overcrowded—not with good doctors, but with men and women holding the degree M. D. whom an indulgent public permits to practice on it without considering their mental, moral and physical fitness. Cheap and ill equipped institutions with curriculums so deficient that they can hardly be dignified by the term "medical college"—institutions organized solely to further the selfish interest of a clique of self-styled professors—are annually graduating students by the hundreds. Students whose ranks are recruited—not from the best and noblest of American manhood and womanhood—but rather from the ranks of those who find in the practice of medicine merely a rapid and certain means of attaining wealth and social position. And when the real condition of affairs is revealed to these graduates and they realize that they have invested their thousands of dollars and years of study in preparation for a profession which at best can yield them only a limited income, too many of them cast to the winds their sense of right and justice and bring into the practice of medicine all those degrading arts of commercialism which react so injuriously, not only on themselves, but on the whole profession.

But the low grade medical schools are not the only ones that graduate men who have no regard for medical ethics. Every year the better class of schools graduate a few of those who have depended, with more or less success, on what in student parlance is termed "bluffing ability"—men who have not burned the midnight oil in hard study, but have squandered that precious time in the pursuit of pleasure. Of the two classes these men are the most dangerous because they carry with them the prestige of their Alma Mater, and in their violation of medical ethics and traditions they set an example which it is easy for weaker men to emulate.

One other motive for soliciting and accepting contracts, is a purely selfish and malevolent one. It is the desire to prevent or at least to impede a competitor in the acquisition of a practice, to deprive him of a legitimate source of income or throw obstructions in the path of his progress.

Lodge practice, and in fact all contract practice, exerts a detrimental effect on all concerned, on the contract physician himself, on the whole body of physicians and ethical practitioners, and on the laity. Under these three heads the subject will be discussed and a remedy for the evil considered.

EFFECT ON THE CONTRACT PHYSICIAN HIMSELF.

Any physician who contracts to give an unlimited amount of professional services for a low annual fee, for a fee which is not based on the amount and character of the services rendered, rates himself as a cheap man. The laity regard a man's worth as he himself regards it. That "the laborer is worthy of his hire" is a biblical adage that applies with more than ordinary emphasis to professional activities. Professional services do not represent a material, tangible commodity which can be measured and compared and the compensation fixed accordingly, but on the contrary, the remuneration therefore must be based on the physician's own estimate of the worth of his services. Within certain narrow limits the law of supply and demand operates to prevent the physician from placing an exorbitant, unwarranted, and unusual value on his services, but the observation has repeatedly been made that the services of him who demands a fee commensurate with the character of such services, are regarded as being of more value than those of the physician who permits the laity to dictate the compensation therefore. The conclusion is perfectly natural, the physician and his colleagues being practically the sole judge of the value of such services. Therefore any physician who offers his services for a fee far below that demanded by his colleagues for similar services, is looked upon with suspicion by his patients. His capabilities are regarded slightingly. The idea is prevalent among the laity that the best class of physicians do not accept contract work and in that supposition they are correct. They feel that the contract physician realizes that he is professionally deficient, that he could not compete with his colleagues did he depend solely on his professional knowledge and skill, and that that is his sole reason for offering his services for such an insignificant sum. From the moment he enters the patient's home to the time he leaves his every act is critically ob-

served and often prejudged. The patient knows that the physician has received his compensation and he knows, too, that it is entirely disproportionate to the fee usually demanded for such attendance. He therefore reasons that the physician is either incapable or that he is going to shirk his duty and do as little as he is obliged to do. He feels that the doctor has not a personal interest in his case—that the doctor knows that his annual fee is assured whether he does or does not do his duty by the patient. He is convinced that his work is slipshod and careless, his examinations superficial and his treatment routine. This lack of confidence on the part of the patient is fatal to that mutual co-operation which should exist between the patient and his physician, and which is so conducive to good results in treatment. Slight mistakes and lack of care on the part of the doctor, which would ordinarily pass unnoticed, are magnified into and regarded as acts of the greatest negligence. When the physician also furnishes the medicines these are looked upon as being of an inferior quality. This is ofttimes the case. The doctor naturally wishes to limit his expenses and purchases the cheapest drugs on the market. Therefore when the patient regards himself as being seriously ill he calls in a "rival" doctor. This, of course, reflects on the integrity of the contract doctor, but he as a rule is utterly indifferent to that sort of treatment. His quarterly remittance is assured and it matters little whether or not the patient is satisfied with his services.

His incentives to study and self improvement are lacking. He has practically no competition. All his time is occupied in making hasty calls on his $2.00 per annum clientele. What little leisure time he does have, is spent in much needed rest, in recreation or in pulling wires to enter into new contracts or keep those he has. His medical magazines are seldom removed from their mailing wrappers. His text-books show the accumulated dust of months of disuse. As for doing post graduate work—that is entirely out of the question. First, there is really no necessity for that in his case. His practice does not demand the highest quality of professional learning and skill. He is in a class all by himself and he does not fear the competition of his more highminded brethren because they do not compete with him at his rate of remuneration. Second, if he left his practice in the hands of another for more than a couple of weeks it is highly likely that he would lose his "job".

In making his calls he must proceed rapidly, his patients believe in getting a full return for their investment and he is called to see cases repeatedly where a physician would not be called, were the regular fee to apply. One of the children in a family has abdominal pain,

and the anxious mother promptly conjectures that it is appendicitis. Before the head of the family joined that "free doctor lodge" she knew it was the result of too much indulgence in mince pie or other dietary indiscretion, and treated it with a dose of ginger and warm applications and had uniformly successful results. But it looks stylish to have the doctor's rig standing in front of the house and excites the curiosity and envy of the neighbors, therefore the "free doctor" is summoned. Likewise with night calls. Frequent and unnecessary calls simply because "it does not cost anything".

Perforce our contract doctor must make haste in making his rounds. His examinations are superficial and his diagnoses are based on insufficient data. It is a habit that grows, and very soon he is wholly dependent on the appearance of the tongue and rapidity of the pulse in making a diagnosis, supplemented by a more or less reliable intuitive faculty. Naturally his diagnostic mistakes are frequent and ofttimes serious. The serious ones accumulate. His simple colic case turns out to be perforative appendicitis, general peritonitis and death. Result—one family clamoring for a change of doctors in the lodge. Eventually he is superseded by an individual no more capable than himself and he finds himself an M. D. in middle life without a practice. A few families may cling to him but the greater majority go with the lodge. In time he loses all his families. The slipshod methods of diagnosis and treatment persist. He tries to reform but finds himself many years behind his respectable brethren. He cannot regain his place and practice. Result: one more recruit to the ranks of quackery, or, more often, he becomes an abortionist.

The aggregate income of the contract physician is less than it would be were he to practice medicine ethically. The number of calls made would probably not be as great, but he would receive a fair fee for his services,—a fee based on the amount and character of his work. His opportunities for study, recreation, and post-graduate work would be greater, and his enjoyment of life greatly increased.

When he signed the contract with the lodge he argued that many of the lodge members would not call him into their families; in some families there would be no illness—therefore the annual payment from those particular families would be a clear gain. That some of his own lodge brothers should hold his professional attainments in so light esteem as to refuse his professional attention should cause a blush of shame to suffuse his cheeks, but contract practice is not calculated to stimulate one's sense of self respect.

In reasoning that in some families there would be no illness the contract doctor reckons without his host. A case of typhoid in a single

family or other long continued illness will often necessitate calls which would, were the usual fees to apply, amount to a sum which is a large fraction of his entire annual payment from the lodge. In fact, comparatively few such cases will often total the whole amount.

Another delusion under which the contract doctor labors is that by treating the head of the family, he will be called to attend the other members, or that he will secure the surgical and obstetrical cases. Nothing could be further from the truth. The well paid specialist secures the surgical cases, and the midwife or a physician who has a local reputation as an obstetrician, attends the confinements.

The contract physician is naturally lacking in that dignity which self respect and self appreciation engender. When he is called into the family of one of the influential members of the lodge, his obvious efforts to please, his cringing attitude, his artificial solicitude for the patient's welfare, cannot help provoke in the patient or his family either a sense of extreme importance and dictatorialness, or possibly ill-concealed disgust. In the midst of families of lesser importance his manner is overbearing and haughty, brusque or even insulting. If he feels that the call was made unnecessarily his handling of the patient and attitude toward the other members of the family, too often, degenerate into positive rudeness. These habits once formed are hard to correct and react much to the detriment of the one who is so unfortunate as to cultivate them.

The young practitioner who seeks and obtains a contract to act as lodge physician is working directly against his own best interests. The laity are even distrustful of the young man. No matter how well trained he may be to take up the responsibilities of practice, no matter whether he has served an interneship in a good hospital or not, the fact that he is a "young doctor" makes him the victim of that meaningless phrase "without experience". Complications that naturally occur in the course of an illness, such as hemorrhage in typhoid, nephritis or otitis media in scarlet fever, are traced directly to his lack of experience or knowledge.

The young physician taking up lodge practice as the means of obtaining an introduction in a community, usually accomplishes his purpose, but, as a rule, with few exceptions, the introduction is a bad one indeed. A good start means half the battle won. Distrust of a man's abilities, once provoked, is hard to remove. Like the Old Man of the Sea on the shoulders of Sinbad, it is a hard burden to shake off. Lodge practice patients follow the lead of the lodge and change doctors as often as the lodge does. And likely as not every member of the lodge will constitute himself a committee of one to

"knock" the young man who has just been displaced. They thus try to justify their action in taking the contract away from him and in that way deal him a blow that is fatal to his advancement in that particular community.

The majority of physicians who have the welfare of the whole profession at heart, are earnestly opposed to all influences which tend to operate to the detriment of the whole profession. They become either active or passive enemies of the doctor who signs a contract with a lodge. They criticise him severely. His mistakes in diagnosis and treatment are promptly exposed and the opinion of the laity that he is a weak member of the profession thereby confirmed. His good standing in the various medical societies is brought into question and in many other ways the path of this transgressor of medical ethics and traditions is made a very stony one indeed.

I can conceive of no greater mistake for a young man, just beginning a professional career, to make than to take up contract practice with the hope that he will be either directly or indirectly benefited by it. To him I would say "Don't." That path leads to defeat. Practice medicine on the square. Bring the best that is in you to bear on every case. Read, Think, Observe, Investigate. Respect yourself and your profession and eventually you will win out. Merit will win. Let the professional riff-raff fight for their contracts. Their gain is temporary. In time they, as a consequence, fall by the wayside. They have, through their contract practice, acquired a poor pay, deadbeat clientele. The desirable element will always go to the man who gives the best that is in him, to the man who works, to the man who places his professional ideals on a high pedestal, to the man who justly demands a fee proportionate to his worth.

EFFECT ON THE WHOLE BODY OF PHYSICIANS.

Lodge practice naturally curtails the practice of the ethical physician. It is human nature to try to get as much as possible for the least expenditure of money. The laity believe that the degree of M. D. attached to an individual's name, gives him the same degree of professional proficiency as any other individual with a like appendage, age and years of practice being the same. Eventually by painful experience they are educated up to the fact that, as in all other things, there are degrees of quality even in physicians. Whenever the head of a family becomes a member of a lodge having a contract physician, the old, self-sacrificing family doctor who has served them so faithfully and well for many years, is displaced and thus deprived of a portion of his income. When an illness in this same

family becomes serious, due to lack of proper diagnosis, treatment or possibly neglect, he is again called upon and it is expected that he will cheerfully answer the summons. If he refuses to answer the call he is harshly censured; if he does respond and assumes charge of the case and the patient dies, as the result of the previous mistreatment, on his shoulders is thrust the burden of responsibility and blame.

Dissension and strife among physicians is fostered. Instead of the harmony and co-operation, so essential to the advancement of common interests, mutual enemity, distrust and bitterness are encouraged. The diagnosis and treatment of contract physicians are harshly censured and only too often on justifiable ground. The laity, not understanding the real cause of the contention, attribute it to "professional jealousy", and the dignity and best interests of the whole profession are seriously injured. General disrespect of the medical profession is also stimulated. No concerted action on the part of physicians to fight other existing evils is possible where such a constant state of friction and ill feeling exists.

Charges of being unethical are frequent and emphatic and occasionally the chronic condition of bitterness and dislike may break out into open warfare and assault, and the whole profession suffer the humiliation of being placed in such an undignified position.

Mutual respect and protection are lacking. When the patient of a contract physician dies as the result of his lack of professional care and the exercise of a reasonable amount of skill and knowledge, the relations and friends are often even encouraged to begin a malpractice suit. And every malpractice suit, whether won or lost, affects every member of the medical profession injuriously as it acts as a direct incentive for other patients to begin damage suits on the slightest pretext.

The young physician seeking to gain a practice by purely ethical and honorable means finds it difficult indeed to gain a foothold. There is no such thing as a "fair field and no favors" in the practice of medicine. He finds that he is not permitted to match his learning and skill with his older colleagues. There is no competition of brains, good judgment and manual deftness, but rather that of graft, intrigue and pull. The young doctor with high ideals, self respect and an exalted sense of duty to himself and his profession, who refuses to descend to the low position of a grafter and professional beggar, is assured of a long and tedious climb up the ladder to success. He is not called into families and thus placed in a position to demonstrate his knowledge and skill. When lodge practice is prevalent the

contract physician is first called in to treat the case. When the illness becomes serious the older, long established and better known practitioner is summoned. Opportunities to demonstrate his abilities are few and not subject to natural laws, but are so hedged about by artificial conditions that the free working of the law of supply and demand is impossible. As a consequence the young practitioner becomes discouraged and either seeks a new location or is forced by extreme necessity to go into other lines of endeavor to gain a living. His ambition is stifled, his enthusiasm subsided; the stimulus for study being removed, he becomes "rusty". If he decides to "play the waiting game" when patients do begin to seek his advice and services, he is prematurely aged in his profession and is apt to regard it more as a business than as a liberal profession.

The older practitioners should welcome the competition of brains. It is a direct incentive for them to keep abreast of the advances in medical knowledge; it stimulates their enthusiasm and habits of study and investigation. The recent graduate, fresh from his labors at the fountain heads of medical progress, should be heartily welcomed into the company of those whose many duties prevent them from making frequent journeys to the seats of medical learning. The young doctor can teach the older much concerning the fundamentals of medicine, and he, in turn, can impart much that is valuable concerning the art of practice.

The only competition that should prevail in the medical profession should be that of intellectuality, practicability and skill. The law of the survival of the fittest should operate unhindered, and the fittest in our profession should be those "who best can do the work."

Contract practice in any form tends to lower fees. It operates automatically. Together with a reduction of compensation general disrespect of the whole profession is stimulated. It tends to place professional services on a purely commercial basis. There is not that spirit of gratitude on the part of the patient toward his physician that should exist, the feeling that the monetary reward does not balance the account, but that the patient is always the debtor of the conscientious physician. On the contrary patients are prone to quibble with their doctors concerning the fee demanded for his attendance. There is constant effort, direct or implied, to drive a bargain with the physician, an effort to get as much as possible for the least outlay of funds. The physician is thus placed in the same class with the tradesman.

Were there no such thing as contract practice the aggregate income of the whole profession would be greatly increased. The work

would be more evenly distributed thus giving all an income more in keeping with the dignity of their profession. There being more time for study, recreation and post-graduate work, it would naturally follow that physicians would be better equipped to perform their professional duties.

EFFECT ON THE LAITY.

Contract practice reacts to the detriment of the laity as well as to the contract physician and the ethical practitioner. In fact, they are the ones who suffer most by the workings of this institution. They are not aware of this fact, because, as a rule, the laity are superficial observers and their judgment is based by their supposed financial gain. Contract practice tends to deteriorate the character of medical services rendered. The self respecting, skillful, well informed and conscientious physician will not do contract work. The incompetents and professional riff-raff strive to and do obtain the contracts.

Contract physicians, as a rule, with very few exceptions, are the graduates of cheap schools having low grade entrance requirements and a course of study very far below the standard. They are the ones who do not have the benefit of a hospital training and do not do post-graduate work. They are not students and do not keep abreast of the advances in medical learning. They are not men of attractive personality, men who could not, in the ordinary course of events, compete successfully with their better trained and more deserving colleagues. They do not take that personal interest in every case nor bring to bear on it the skillful handling which their more competent brethren do.

Contrary to popular belief contract medical attendance does not result in a financial saving to the family who employ a lodge physician. Too often, as the result of a wrong diagnosis, the use of cheap and inert medicaments and the lack of that discriminating care and attention, so essential to the successful treatment of an illness, the case is not properly handled at the beginning when it is most amenable to treatment, nor throughout its entire course. As the result of such inefficient medical services the patient is ill much longer than he would be ordinarily, and as a result of this and the prolonged convalescence his annual earning capacity is very greatly reduced. Complications which could have been avoided may result in chronic invalidism or possibly deformity and the patient thereby temporarily or permanently incapacitated from the performance of his usual vocation. A sojourn in a sanitarium for a long or short period or the services of a high priced specialist may be required to place the pa-

tient in a position to support himself or family. The financial loss instead of gain is self-evident.

The patients of contract doctors are scattered over the community and as his services are at their command with no limit on the number of visits, his time in consequence is well taken up. He therefore finds it necessary to segregate his patients, and, as hospitals are useful institutions for that purpose, every case that can possibly be made so becomes a hospital case. The patient, his friends or his parents, are frightened into believing him so seriously ill that he must be torn from his home surroundings and hustled off to a hospital. The patient pays the hospital bill and the convenience for the doctor is self-evident. In a great many cases this is absolutely unnecessary and involves a financial burden upon the individual or family which they are ill able to stand. Here again the monetary loss to the layman employing the lodge physician is plain.

The physician and not the lodge is the sole judge of the necessity for calling him. He may regard a call made for his services as being based, not on real alarm at the patient's condition and an action intended solely for the patient's welfare, but simply because his services were already paid for and that the alarm felt for the patient was needless and would not exist were the usual fees to be paid. Night calls are especially distasteful, and as a result patients who call the lodge doctor during his sleeping hours are often treated with scant courtesy. The patient is hurriedly examined or not at all, depending on the humor of the professional attendant. The fears of the patient, his parents and friends, are belittled and they are lulled into a sense of false security. Perchance the trouble is not of a serious nature and the recovery speedy, but the contrary may be the case and the loss of a loved one traced directly to this state of criminal indifference on the part of the medical adviser.

That the mental state of the patient greatly influences the course and termination of an illness is a fact almost as well known among laymen as physicians. Trust and confidence in one's physician, in his abilities, in his interest in the patient, in his sympathy, are factors that go a long way toward the successful treatment of an illness. The patient employing a lodge doctor in whom he has little confidence and for whom he has little respect places himself and the physician at a disadvantage. Instead of mutual co-operation there is distrust on one side and a desire to be rid of the case as quickly as possible on the part of the other. The patient, in this respect, suffers more than the doctor. His progress toward recovery is slow and tedious. The visits of his professional attendant are not followed by that buoyancy of

spirits and a hopeful mental attitude, but rather by one of dissatisfaction and discontent. General disrespect for the whole medical profession is encouraged, faith in the integrity of physicians as a class is impaired, and when the individual is ill again he may hesitate to seek the advice of a physician and valuable time is thus lost. He may fall into the hands of quacks and charlatans and lose both his health and wealth.

THE REMEDY.

A multitude of suggestions have been made concerning the best method of abolishing this iniquitous system which carries in its train such a lust of evils. Some have been possible, others impossible. Professional ostracism, expulsion from medical societies, legislative action, reduction of fees, appeal to the various organizations, and education of the public are either too apt to increase discord, too radical in intent or subversive of the dignity of the profession. The real remedy is exceedingly simple. It is only through thorough and complete organization that this problem can be met and properly disposed of. Contract practice in every phase, as an institution, must be completely and absolutely abolished. It can be done and it must be done, and we must do it now. It threatens the very existence of the medical profession and stands as a constant menace to progress. A wave of moral, social and economic reform is sweeping over the country. We as a profession should ride on its crest. Much has already been done, but we have as yet just begun to clean our doorstep. The national organization can initiate the broad movements, the county societies must attend to the details, and this problem of contract practice is one of the most glaring evils and demands our immediate attention. It must be studied and its solution found. We must work as a unit and in harmony. Instead of studiously avoiding any consideration of the subject it should be brought to the forefront of discussion. Every phase of it should be considered and every energy bent toward its extermination. We must bind ourselves by an agreement not to do contract work in any form (municipal and county charity work excepted, but for that we should strive to obtain a remuneration reasonably proportionate to the services required).

In our own ranks we should combine argument with pursuasion. The question should be treated broadly, liberally, and in a spirit of firmness. Let everybody be heard, his arguments considered and his evidence judged. The case is so obviously one-sided that there can be no other conclusion arrived at than that contract practice is an evil and should not be suffered to exist. The individual must sink

his selfish interest in the welfare of the whole profession. He must be made to understand that what is now to him possibly a source of small profit will eventually react to his own detriment and to that of the whole profession.

If some for purely selfish motives, will not act in harmony with the majority, let that not deter the majority from action. Let the best element in the profession refuse to do contract work and let the public know that their action is based on justifiable grounds. It will be a stinging rebuke to the selfishness and unprofessionalism of those who try to obstruct the path of progress and justice. Some of the organizations which grant contracts are in a state of blissful ignorance as to the attitude of the best physicians in the community. Because of the efforts of a certain class of physicians to obtain their contracts they have been lead to believe that they have a great favor to bestow on the medical profession. When these organizations and the laity realize that the best element in the profession is heartily opposed to contract practice and would refuse to do it under any and all circumstances, the moral effect will eventually solve the problem. It will work automatically. Organized effort, though, will bring about immediately the best results, and all will gain greatly by it.

There need be no fear of provoking the hostility of the laity. When they are once acquainted with the real facts of the situation we can rely on their hearty moral and material support. This action on the part of the medical profession is not intended solely for their own selfish interests. The laity themselves are more directly benefited. We need not fear that the accusation of "Doctors' Union" will be used disparagingly. Justice is the predominating spirit of our present day Americanism and the attaining of it through organized resistance of oppression is everywhere exemplified in our daily life. The labor unions are wresting piece by piece the hard earned reward of their labors from the money-mad and oppressive corporations. Their sympathies are with any body of individuals who seek justice and right through organized effort. Therefore we can expect the co-operation of the laity in this movement.

But we must combine a campaign of education with our action. The public must be shown why we refused to do contract work. We must teach them to pay for what they receive, and then teach them to expect to receive what they pay for.

With regard to ourselves we should advance progress and strive for perfection. The best that is in us should be applied in every case, and when we do that and the public understands that the "laborer is worthy of his hire," we may rest assured that we will receive the financial reward for our services to which we are so justly entitled.

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EDITORIAL COMMENT.

THE SIXTY-FIRST ANNUAL MEETING.

After a period of twelve years, the members of the State Medical Society again journeyed northward to meet in annual session at Superior. It was expected that the remoteness of the place of meeting from other cities of the state would have the effect of decreasing the usual attendance materially, but nevertheless about 125 physicians registered, representing all sections of the state.

From many standpoints the meeting was very successful. The business transacted by the House of Delegates was not of such volume as to curtail deliberation, and the proceedings of the general session were transacted with commendable despatch, under the attentive guidance of President Pelton.

The most important questions before the House of Delegates were those concerning fees for life insurance examinations and the establishment of protective insurance for and by the members of the society.

The selection of Dr. Wm. E. Ground of Superior as president for the coming year is a well deserved honor. Dr. Ground is representative of the best medical effort in the great northern district of the state, where he is held in high esteem, and last year held office in the society as its second vice president. Always active in the interests of the profession in his own particular locality, the state at large will now secure the benefit of his zeal. Plans are already being formulated which will make the next meeting, at Milwaukee, a memorable one.

The program was well carried out; the papers were in the main valuable and instructive, and elicited animated discussion. The symposia, on Headache and on Puerperal Sepsis, were innovations in the program, and gave a many-sided view of the subjects. The announcement that Dr. George Crile of Cleveland would be unable to attend was received with regret, for the Address in Surgery—"Hemorrhage and Transfusion"—by this brilliant constructive surgeon, had been looked forward to with expectancy. Professor George Dock of Ann Arbor delivered the Address in Medicine—"Recent Advances in the Study of Heart Disease"—a thoughtful and scholarly presentation of the subject, which enlisted the deep interest of those present. The address is published in this issue of the JOURNAL.

Special mention cannot be withheld from the forceful paper of Dr. C. A. Harper, secretary of the State Board of Health, which dealt pertinently with the relation of the physician to contagious diseases and the public, and the questions of diagnosis and quarantine. The character of the paper merited a larger audience.

The entertainment committee well merits the thanks of the Society for its excellent program. The steamboat excursion on the harbor and lake was advanced from Thursday to Wednesday evening, and will always remain an enjoyable memory to those who were fortunate enough to participate. The smoker at the Commercial and Elk's Club rooms provided an opportunity to renew old and make new acquaintances, and was distinctly an occasion where jollity reigned.

In tendering our thanks to the physicians of Superior for their cordial reception and to the members of committees which made this meeting a success, we are but voicing the sentiment of all who were in attendance.

THE QUESTION OF PROTECTIVE INSURANCE.

Among the recommendations the secretary, Charles S. Sheldon, made to the State Society for its action, none is of greater importance to physicians than that dealing with their protection against the suits so frequently instituted by unscrupulous patients, through equally unscrupulous lawyers. No case so rank, no complaint so far-fetched, but a prosecutor can be found to father and further the swindle. A patient elects to refuse the payment of his physician's bill; nothing is easier than to present a counterclaim for damages.

All lawsuits entail an enforced expense, great loss of time, and much inconvenience. That physicians' defense insurance companies have become deservedly popular, is thus easily understood.

The committee to whom this matter has been assigned, has on its hands a task of great magnitude, but one which, when completed, will deserve the gratitude of the profession.

If individual members of the Society have views upon this subject to which they may desire to give expression, they will at all times find the columns of the JOURNAL at their disposal.

THE JOURNAL APPROVED.

It is with some gratification that the editors and directors of the JOURNAL received the announcement of the unanimously favorable action taken by the State Society in adopting the JOURNAL as its official publication for another year.

We take it that this action permits the inference of the Society's approval of the JOURNAL'S attitude on various questions it has espoused. Many matters of a controversial nature have been considered during the past year; it has been our aim and effort to treat questions and individuals in as fairminded a manner as was consistent with ethical principles and unbiased conviction. It may savor of boastfulness to say that we have at all times, in our expressions, been free from bias. More rightly speaking, we are sensible of having demonstrated bias, but believe that, so far as possible, this has always been in the direction of fair dealing, and in defense of principles which mirrored our own views of right.

As on previous occasions, we now again invite our readers to make as liberal use of the JOURNAL'S pages as they may wish. We desire our readers'—and this means the members of the Wisconsin profession—confidence and co-operation. By this we mean that we invite them to correspond with us as freely as they may see fit. We are

glad to give space to letters and queries, to communications of any kind, to criticisms and commendations, knocks and boosts. We are willing to take up and give prominence to all questions that interest the profession.

The action of the State Society denoted a vote of confidence in us and our policy. We are duly grateful.

MEDICAL SCHOOL INSPECTION ASSURED.

Systematic medical inspection in Milwaukee's public schools, to cost about $8,000 annually, will be inaugurated on January 1, 1908. The council committee on health has concurred in a resolution of the Milwaukee Medical Society for the establishment of medical inspection.

Health Commissioner G. A. Bading, will begin immediately to prepare an ordinance providing for systematic inspection under the supervision of the Health department. We have frequently commented upon the desirability of this inspection. The Milwaukee Medical Society, under whose auspices several schools were systematically visited during a period of one month last spring, the condition of the children examined, and an elaborate report submitted, is to be congratulated upon the recognition of its labors as shown by the prospective adoption of medical inspection upon the lines suggested.

PENNSYLVANIA AND TUBERCULOSIS.

The manner of providing for the tuberculous in and by various communities is a topic of such general interest, that—hackneyed as the subject has now become—we still feel it a matter of sufficient importance to dwell upon as often as anything that is new or interesting presents itself.

The latest move of much importance has been made in Pennsylvania. The responsibility of wisely distributing a one million dollar appropriation has fallen upon Dr. Samuel G. Dixon. It is proposed to establish a dispensary in each of the sixty-seven counties in the state. The work of these will be educational and prophylactic, as well as directing the treatment of ambulant cases. Doubtless uniformity in treatment and direction will be employed, and this will ensure better results than were each county to plan its individual campaign.

Of greater interest, perhaps, is the outlined scheme of sanatoriums. Concerning this, Dr. Dixon says: "The scheme for the

sanatoriums which we are planning for in Pennsylvania, contemplates utilizing the great forest reservations of the state for the purpose of hospital or sanatorium treatment. It is proposed to have the two colonies at widely separate points, that they may be accessible from different parts of the state. Instead of massive structures of brick or stone, we shall erect a large number of frame cottages, each of which will accommodate a comparatively small number of patients. Somewhat apart from these there will be an infirmary for those in the more advanced stages of the disease.

After recovery the male patients will be afforded opportunities for work in the forest, for which they will be entitled to their board and clothing, for a sufficient time to test their strength and the reality of the cure. Men whose previous occupations have been such as to create a great quantity of dust, such as saw-sharpeners and stone-cutters, will be urged to seek permanent work of a less objectionable nature" (Quoted from Charities).

We commented, in our last issue of the JOURNAL, upon plans made in New York state for the employment of the apparently cured. This latest phase of the problem, that of working out to its ultimate analysis the care, cure, and future of the consumptive, is beginning to attract widespread attention. It will lead to the reclaiming of many a recovered consumptive, who, having lived under others' direction, would find the problem of healthy occupation a most difficult one with which to cope.

DOG DAYS.

Will the "trust busting" campaign that is being carried on in this country bring us to the necessity of thwarting the designs of the meat barons by forcing those of us who are carnivorous to seek other meats upon which to sharpen our teeth, than those in which they (the barons) specialize? If so——we have but to inquire how 'tis done in Germany, (in other countries too, no doubt) and we may forswear allegiance to home packers, and help on their doom of ultimate extinction.

In Germany there were slaughtered during the year 1906, about 700 or more dogs, and 182,000 horses, for food purposes. Horse flesh is advertised in the German newspapers. In most of the large cities there is at least one market devoted to the sale of horse meat which is claimed to be more highly nutritious than other meats.

Dog meat is also in demand, and it is no unusual thing to read that there is wanted a dog of decent birth, though not necessarily

pedigreed, and preferably without known antecedents and owner. Animals answering this description find ready adoption, and in this manner many household pets change ownership unceremoniously and without the usual formality.

We used jestingly to speak of sausage as "dog." Will we in this country too have to eat our words?

NEWS ITEMS AND PERSONALS.

Dr. L. Rock Sleyster has removed from Kiel to Appleton where he has formed a partnership with Dr. H. Schaper.

Abroad. Dr. and Mrs. Richard Dewey of Wauwatosa; Dr. and Mrs. Albert G. Jenner, and Dr. Ralph Elmergreen, of Milwaukee.

Dr. Arthur W. Rogers, for ten years assistant physician of the Milwaukee Sanitarium, has established the Oconomowoc Health Resort, at Nashotah for the treatment of nervous and mental cases.

Dr. Mazyck P. Ravenel, recently elected Professor of Bacteriology at the University of Wisconsin, is a delegate of the United States at the International Congress of Hygiene and Demography, and sailed for Europe Aug. 11th.

Imposter Fined. Dr. (?) F. C. Halloway, claiming to have practiced in this state for twelve years, was fined at Sturgeon Bay and driven out of the county for practicing medicine without a license. He was traveling with the Clifton Remedy Co.

Chiropractic Wins Suit. Charged with practicing osteopathy without a state license, a Japanese named Morikubo was acquitted by a jury of four men at La Crosse. The prosecution was brought by the State Board of Medical Examiners, which desired to make a test case.

Dr. Adolph Hess, a graduate of Jefferson Medical College, Philadelphia, 1902, died in Milwaukee on August 19th, of uremia following an attack of acute cystitis, aged 42 years. Dr. Hess was an agitator for the return of Jews to Palestine, and was instrumental in getting colonies of his countrymen to leave Russia after the massacre of Kishineff.

Public Pay for Sick. In convention at Exeter, the British Medical Association has almost unanimously supported a contention advanced by a member that sick people should be treated at public expense. In discussing the idea the points were made that the physician's work is now done under conditions involving the petty worries of fee collection, the stress of competitive commercialism and the sweating of the profession by hospitals, friendly societies and similar organizations. The increasing number of cases treated at voluntary or state aided institutions was a phase of the movement.

W. E. GROUND, M.D.

PRESIDENT STATE MEDICAL SOCIETY OF WISCONSIN, 1907-1908.

Dr. William Edwin Ground, was born near Linton, Indiana, in 1862 of Dutch-English parentage. He attended the country schools, the Spencer High School and finally entered Battle Creek College, but having a desire to study medicine he matriculated in the Missouri Medical College, (now Medical Department of Washington University) St. Louis, in 1880 and was graduated from that institution in 1883. Dr. Ground located in Toledo, O., and was on the faculty of the Toledo Medical College, being Demonstrator of Anatomy and Lecturer on Otology and Rhinology. Desiring to devote special attention to surgery and gynecology he gave up his work in Toledo and went east, spending four years in the post-graduate medical schools of New York, Boston and Philadelphia. Being compelled to seek a Northern climate, owing to peculiarities of health, he came to the head of the lakes in 1891 and has practiced in Superior ever since.

Dr. Ground has always taken an active interest in medical society matters, being a member of many. He is ex-president of the Douglas County Medical society, the Duluth-Superior Academy of Medicine, of the Inter-County Medical society and the Eleventh District Medical society, as well as being a member of the A. M. A., and the Western Surgical and Gynecological Association. He is Division Surgeon for the Great Northern Railway, and was Commissioner of Health during the administrations of Pattison and Dietrich, and it was largely through his influence and work that the Water Company was forced to provide a safe water supply, besides instituting many other ordinances to better the sanitary condition of the city of Superior.

W. E. GROUND, M.D.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President

Herman Gasser, Plattville 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.		FOR FOUR YEARS.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., Edward Evans,	La Crosse
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
FOR TWO YEARS.		**FOR FIVE YEARS.**	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerhering,	Wausau
4th Dist., W. Cunningham,	Platteville	10th Dist., E. L. Boothby,	Hammond
FOR THREE YEARS.		**FOR SIX YEARS.**	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., C. J. Combs,	Oshkosh	12th Dist., A T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

THE SIXTY-FIRST ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN.

Resumé of Proceedings.

The State Medical Society of Wisconsin held its Sixty-First Annual meeting at Superior, August 21, 22 and 23, 1907.

The meeting was largely attended and successful. The membership of the society is 1,503 as against 1,434 last year, out of a possible eligible membership of 2,000. The physicians of Superior did everything possible to entertain the visitors, and the attendance reached 125.

The commercial exhibitors were the Kremers-Urban Company of Milwaukee, which had a remarkable pharmaceutical display, the Keasbey & Mattison Company, the Smith, Kline & French Company (Eskey's Albumenized Food), Horlick's Food Company, and E. H. Colegrove Company, medical booksellers.

GENERAL SESSION.

The meeting was called to order at noon of August 21st by President L. H. Pelton of Waupaca.

The president in his Annual Address sketched the progress of medicine and surgery to the present time, and said that such progress had resulted in increased longevity. Our old society was a good one, but increase in numbers made reorganization and systematic alliance with the American Medical Association absolutely necessary. National legislation should be secured by strict co-operation. County and district societies should be encouraged, and the former should meet at least quarterly. There is no profession in which constant reading, observation and comparison are so necessary, none that has a greater range of usefulness, none where unity and fraternalism, wherein lies the strength of all organizations, are more to be desired than in the medical profession.

Dr. L. A. Potter of Superior then read a paper on "Pneumonia." He thought the subject should be discussed each year until better treatment is secured and methods of prevention better understood. The virulence of the pneumococci are greatly increased when passed through a susceptible animal. Sudden chilling is a contributing cause; alcoholic drinks and narcotic drugs favor the disease; it is probable that the amount of patent and proprietary drugs, which contain largely alcohol and narcotics, consumed in the past, has played an important role in the causation of pneumonia. The means of prevention lie in general and personal hygiene and disinfection. Health departments should have the same authority in pneumonia as in other contagious and preventable diseases. There is no known specific for pneumonia, though one may be developed from Wright's opsonic theory. No advantage has been secured in the serum treatment. Open air treatment is advantageous and the colder the weather the better the results. The treatment, however, should be individualized.

Dr. H. E. Wolf of La Crosse read a paper on the "Mechanism of Pneumococcal Infection." Careful study of the organisms isolated from the blood of pneumonia patients, and of the mechanism by means of which the body protects itself against and combats infection, are important. Phagocytosis is dependent upon the presence in the blood of opsonins. The opsonic index shows the protective powers of the blood. The opsonins can be increased by the injection of the proper bacterial vaccines, and in many cases this increase of opsonins is associated with favorable influence on the infection, thus

indicating a new line of treatment and pointing toward the ultimate discovery of a specific for pneumonia. The essential process in lobar pneumonia is pneumococcemia. Blood cultures in fatal cases are always positive and more virulent than those taken from non-fatal cases; but virulence (that is, the property by means of which the organism resists phagocytosis) has no influence upon the extent of pulmonary localization nor upon leucocytosis; the extent of pulmonary involvement has no influence on prognosis; leucocytosis is a favorable symptom, yet in the absence of sufficient opsonins is useless. The opsonins in pneumonia are decreased and in fatal cases remain below normal, while in cases which recover they rise above normal just before the crisis. The typical pneumococcic opsonic curve can be produced by the injection of dead virulent pneumococci.

DISCUSSION.

DR. E. W. QUICK of Appleton: Pneumonia is a general disease whose prognosis depends not upon the amount of lung involvement but upon the virulence of the organism. The question of opsonins is occupying much attention at present and promises important ultimate results in the treatment of the disease. Dr. Rosenow has shown that the blood in pneumonia patients exhibits a higher percentage of acid than in health, and therefore the alkaline treatment seems to be established upon a reasonable basis.

DR. L. F. JERMAIN of Milwaukee: It is now established that pneumonia is an acute infectious process, and the changes in the lungs are merely local manifestations of general infection; it should not therefore be treated as a local disease, but along the lines of other acute infectious diseases, and no consideration paid to merely local conditions. Pneumonia should be regulated by local health authorities the same as other infectious diseases are. Our hope in the future treatment of pneumonia lies along the lines of the opsonic theory.

DR. E. J. BROWN, Decatur, Illinois: The opsonic theory explains the success of the treatment of passive hyperemia in joint disease, through increasing locally the opsonic index, and suggests new lines of treatment in various diseases. At present, however, owing to the complexity of technique, the general practitioner cannot do opsonic work.

DR. POTTER, in conclusion, emphasized the point that the cause of pneumonia was bacterial infection, and that it should therefore be treated as a general and not as a local infection.

DR. WOLF referred to the inefficiency of the drug treatment and the great injury it does in destroying the only safeguard that the body has in combating the infection, the opsonins.

Dr. C. L. Combs of Oshkosh read a paper on "Intussusception." This condition in adults is rare and difficult of diagnosis; the chances of recovery are small, especially in gangrenous cases. He reported a case in an adult female of four days' duration where resection was

performed, and although gangrene had set in before operative interference was determined on, yet recovery resulted.

Dr. D. J. Hayes of Milwaukee read a paper on "Venereal Diseases and Marriage." A syphilitic subject has no right to marry unless his disease dates back four or five years and all this time has been devoted to a careful and scientific treatment of the disease. Urethral folliculitis is one of the most insidious and important conditions that occur in gonorrhea. About forty per cent of all gonorrheas affect the prostate. The physician should be as cautious in assuming the responsibility of advising those who have suffered from gonorrhea, in the matter of matrimony, as he should be in advising syphilities under similar circumstances, and the rule laid down by Ultzmann should be followed, viz., that there must be absence of gonococci, absence of pus corpuscles and absence of periurethral complications before marriage is permissible.

DISCUSSION.

Dr. Herman Reineking of Milwaukee: Persons afflicted with venereal diseases should be warned not to marry until cured. Many cases of puerperal sepsis are due to gonorrheal affection.

Dr. Byron M. Caples, of Waukesha: I believe that a man who has once had syphilis should never be permitted to marry, and indeed he should be sterilized.

Recess.

PROCEEDINGS OF THURSDAY, AUGUST 22ND.

In the symposium on "Headache," Dr. L. F. Jermain of Milwaukee discussed the classification, cause and treatment of headache, including headache due to renal insufficiency, defective metabolism, toxins, drugs, migraine, meningitis, cerebral syphilis, and arteriosclerosis. Successful treatment depends on the correct diagnosis of the underlying causes of the headache.

Dr. B. M. Caples discussed the subject from the standpoint of the neurologist, confining himself to headaches resulting from neurasthenia, hysteria, epilepsy and various form of neuritis.

Dr. C. D. Conkey of Superior read a paper on headache from the point of view of the nose and throat specialist. Malformations and inflammations in the nose cause headaches. He described a case of headache which was cured by removing a large club shaped projection from the middle turbinate. Where respiration is obstructed headache may result, especially in the case of adenoid vegetations in the vault of the pharynx.

Dr. Henry B. Hitz of Milwaukee discussed headache of otic origin. He described the various forms of otic headache, and concluded by saying that headache from disease in the region under discussion has not been of great importance except as a means of attracting attention to the affected region.

DISCUSSION.

DR. L. F. BENNETT, of Beloit: Headache is usually simply a symptom, and the real cause or combination of causes should be determined which is oftentimes quite difficult.

DR. J. M. DODD, of Ashland: Headache is simply a symptom of some disturbance occurring perhaps in a remote part of the body.

DR. HITZ: Headaches due to nasal conditions are usually the result of pressure.

A paper by Dr. M. W. Dvorak of La Crosse on "Simple Ulceration of the Bladder in the Female," was read by Dr. Edward Evans. The existence of ulcer of the bladder is generally believed to be of rare occurrence, simply because of failure to make careful examination. The cystoscope, which is the only means of making a diagnosis, should be used in all cases in which a vesical affection is more than transient. Curettage and topical treatment should be employed in these cases.

The Annual Address in Medicine was delivered by Dr. George Dock, Professor of Medicine in the University of Michigan, on the subject of "Recent Advances in the Pathology and Therapeutics of Heart Disease." He said that we are entering upon a new era in the investigation of diseases of the heart. All morbid phenomena, functional as well as structural, are being thoroughly investigated. He sketched the history of the study of heart disease. We have not learned that the heart is more than a crude propulsive organ. It narrows orifices, fixes valves, directs currents, and has a marvelous range of adaptability. Valvular lesions are rapidly becoming better understood; we are starting on a new road in the study of muscular disease and beginning to understand the reason of disturbances of rhythm. The history of the fibers known as the Bundle of His is remarkable, and led to the development of the myogenic theory of the heart's action. Professor Erlanger has made brilliant investigation into the function of this bundle. The essential functions of heart muscle tissue are automatic stimulus-production, conductivity, irritability and contractility. With our present light we can study cardiac arhythmias to much better advantage than we could with the physiology of a few years ago. Arhythmia may be classified into respira-

tory, extrasystolic, fibrillary contraction, heart block, hemisystole and alternating systole. With reference to prognosis a good deal has been said and more can be surmised. In some cases the heart is the primary seat of disease and so causes the functional anomaly. This is true generally in extrasystole, irregular pulse, ventricular asystole, heart block and alternating pulse. In some of the other irregularities the cardiac abnormality is the result of some other, perhaps distant, lesion or functional disturbance. In some cases the part of the heart affected can be stated while in others it cannot. The subject is quite new. The special causes of the anomaly are often impossible of demonstration. The study of cardiac arhythmias will rarely give us in a short time a diagnosis we could not have made without such study; but it will add much to our knowledge of disease phenomena and to the accuracy of our investigation of the individuals we have to treat in practice. Individualization is necessary in treatment. Preventive treatment is the first need. In the treatment of irregularities the main thing is to abstain from cardiac remedies until complete diagnosis has been made. In some cases, in fact, the most important thing is to stop medication, as in patients with compensated valvular lesion who have digitalis irregularities. In other cases indirect treatment is necessary, as in gastric or intestinal reflex arhythmias, arteriosclerosis and neuroses of a general kind.

Dr. Carl Doege of Marshfield read a paper on "Nerve Lesions Complicating Simple Fractures of Long Bones and their Treatment." These complications may readily occur, but are often overlooked. The nerve tissue is peculiarly sensitive to even a moderate degree of pressure. Traumatism to nerves is immediate or remote. Immediate traumata are contusions or divisions of nerves; remote traumata are due to scar tissue formation. Differential diagnosis must be made between contusions and divisions of nerves. Contusions should be treated by expectancy, massage, galvanism, etc., and divisions by suture and end-to-end approximation.

DISCUSSION.

Dr. Herman Reineking of Milwaukee: These cases of nerve injury in simple fracture are rare. I recall only one such case in my experience.

Dr. E. S. Hayes, of Eau Claire, called attention to the fact that a pressure apparently insignificant may cause nerve paralysis lasting for a considerable time.

Dr. G. Perry, of Amery, said that quite an extensive loss of nerve function might occur without permanent injury to the nerve.

Dr. F. W. Epley of New Richmond read a paper on the "Management of Labor." Labor is a natural physiological process which should not be interfered with by the meddlesome midwife. If labor progresses till the head is resting against the perineum, terminate the case at the end of a couple of hours by the application of simple forceps. Do not use the lumbering creations with high sounding names which are now on the market. Most of them are unnecessary and their use pernicious. Employ chloroform only during the last few moments of extreme suffering. Toughen the nipples by having them thoroughly massaged some time before labor.

DISCUSSION.

DR. J. P. COX, of Superior: Bedding and clothes should be made aseptic and the Kelley pad used. The husband is a nuisance and should be kept out of the way entirely. Put a brace at the head of the bed for the patient to grasp. Operate even on the slightest lacerations. Use large doses of morphine supplemented by chloroform.

DR. HUGO PHILLER of Waukesha: The use of chloroform is of prime importance and is without bad results. I prefer the Vienna mixture of 11 parts of ether, 12 parts of alcohol, and 77 parts of chloroform, by weight.

DR. JULIUS NOER of Stoughton: The use of chloroform is dangerous and should be watched as carefully in labor as elsewhere; its use is necessary in but few cases.

DR. A. D. GIBSON of Park Falls: I recommend that lacerations should not be repaired unless they involve the muscular tissue. I use chloroform as a rule in labor.

Dr. F. Gregory Connell of Oshkosh read a paper on the subject of the "Removal of Gall Stones from the Second and Third Portions of the Common Bile-duct." A comparison of the retroduodenal with the trans-duodenal approach leads to the conclusion that the latter is generally the better method. The essayist presented a report of a successful case of trans-duodenal choledochtomy together with an analysis of collected cases.

DISCUSSION.

DR. EDWARD EVANS of La Crosse called attention to the fact that the rarity of the condition was due to the anatomical formation of the duct.

DR. HUGO PHILLER of Waukesha inquired as to the length of time necessary for the formation of these calculi.

DR. CONNELL replied that the time required for the formation of gallstones was in doubt, but that Dr. Mayo thought they were formed in a very short time when proper conditions were present.

Dr. William Ackermann of Milwaukee read a paper on the "Early Diagnosis of Gastric Carcinoma." Early diagnosis is of prime

importance and can be based on no one sympton, but must be founded on the symptom-complex, including loss of appetite, nausea, eructation of gas, epigastric distress, anemia, emaciation, cachexia, age, heredity, previously existing gastric ulcer, examination of stomach contents, lactic acid in place of HCl, and the Oppler-Boas bacilli in place of carcinæ, and constant finding of occult blood. Pyloric and cardiac carcinoma may frequently be diagnosed early because of the presence of obstruction.

DISCUSSION.

DR. F. GREGORY CONNELL of Oshkosh: One-third of all carcinomata occur in the stomach, and 60 per cent. of carcinomata of the stomach show a previous history of gastric ulcer. Complete removal of the neoplasm is the only hope for a cure. After arriving at a suspicion of gastric cancer exploratory laparotomy should be performed.

Dr. N. M. Black of Milwaukee read a paper on "Prevalent Ocular Diseases." This paper gave, for the benefit of the general practitioner, a description of the commonly occurring diseases of the eye (including blepharitis, hordiolum, abscess, chalazion, corneal ulceration, dacryocystitis, blenorrhea, conjunctivitis, ophthalmia neonatorum, trachoma, scleritis, keratitis, iritis, cataract, glaucoma and squint) together with the approved modes of treatment employed.

DISCUSSION.

DR. C. D. CONKEY of Superior: Blepharitis is a most common, and one of the most obstinate forms of eye diseases, especially when ulcerative. Lacrymal disease following hypertrophic catarrh is also obstinate. There is no loss of sight in ophthalmia neonatorum except through failure of technique, and especially through lack of cleanliness in the eye. Nitrate of silver is the ideal treatment. A strong objection to argyrol is that it decomposes rapidly and thus deteriorates. The destruction of the eye in adults from gonorrheal ophthalmia is something frightful. Phlyctenular keratitis and conjunctivitis are readily curable by proper diet.

DR. J. STEELE BARNES of Milwaukee dwelt upon the importance of the study of the pathology of the eye. When the pathology is established, treatment is easy. Strange to say, trachoma has largely disappeared from Wisconsin. Cleanliness is the important point in gonorrheal conjunctivitis.

In closing the discussion DR. BLACK said that the Orthoptic Treatment of squint must be carried over a long period of time before results are obtained, but if the treatment is begun before the child has reached the age of 7 the squint can be corrected without operative procedure.

Dr. Otto H. Foerster of Milwaukee read a paper on "X-Ray Injuries." We are sufficiently informed as to the conditions leading to the development of x-ray burns to avoid producing them in almost

all instances. The distinctive type of burn involves the subcutaneous tissue, produces ulceration which may be very deep, is extremely painful, and successful treatment is difficult. X-ray burns are due to the actinic properties of the rays themselves. Idiosyncrasy to the rays exists. Patients have often been recklessly exposed at close range for periods varying from 20 to 30 minutes, on successive days, and this practice invariably leads to severe dermatitis or to the most terrible type of burn. Recklessness and unfamiliarity with proper technique have done much to bring discredit upon a method which is in skilled hands (to whose use the x-ray should be confined) as safe a procedure as any in medicine.

DISCUSSION.

PROF. CHARLES R. BARDEEN of Madison said that the x-rays produced such a profound modification of the growth-governing cavities, that their use is extremely dangerous except in the hands of skillful operators.

DR. GEORGE SAUNDERS of Superior: I have obtained good results from the employment of the x-ray in nearly all kinds of skin diseases and in mild cases of epitheliomata, and have used the ray to advantage in enlarged cervical glands and in incipient tuberculosis.

In conclusion DR. FOERSTER emphasized the fact that proper protection of operator and patient excludes the possibility of danger. The x-ray is contra-indicated in any skin condition which can be cured by other means without leaving a scar.

Recess.

PROCEEDINGS OF FRIDAY, AUGUST 23RD.

Dr. C. A. Harper of Madison read a paper on "The Physician in his Relation to Contagious Diseases and the Public." It is the duty of the practitioner to diagnose contagious diseases as promptly as possible, assist the authorities in the proper enforcement of all sanitary and hygienic measures, and insist upon quarantine immediately after diagnosis. Protection to the public is of primary importance. The physician, public health officials and the public, should work in harmony and with a view to the extinguishment of contagious disease.

DISCUSSION.

DR. H. J. ORCHARD (Health Officer of Superior): Physicians are too apt to look to the protection of their patients rather than the protection of the public. It is very difficult to secure isolation in many instances in contagious diseases. There is lack of harmony between the health authorities and the people. Where the slightest doubt exists that the disease is contagious the case should be reported and quarantined. The important point is to avoid the exposure of the public. But health officials should not be unreasonable with respect to quarantining flat buildings, hotels, etc.

PROF. CHARLES R. BARDEEN emphasized the point that the treatment of quarantinable cases is really secondary to the protection of the public. It is the physician's duty to report contagious diseases to the proper officials immediately and then it lies with the health officer to enforce the quarantine.

DR. JOHN BAIRD of Superior opposed quarantining in small pox as the public could protect itself by vaccination.

DR. EDWARD EVANS of La Crosse endorsed the position of Dr. Baird and thought the society should soon go on record to that effect. Health officials should always be well qualified experts. Schools and school children especially should be frequently and thoroughly examined.

DR. O. H. FOERSTER of Milwaukee thought vaccination should be followed up to be certain that there has been a "take"; if that is done immunity against small pox will be absolutely secured.

DR. JULIUS NOER of Stoughton advocated the abandonment of quarantine for small pox. Quarantine laws in contagious diseases are not obeyed because the people do not favor them.

DR. HERMAN GASSER of Platteville favored compulsory quarantine as long as vaccination was not compulsory.

DR. WILLIAM B. EICHER of Boscobel thought the Society should take a firm stand for vaccination and pay less attention to quarantining for smallpox. This would remove the scepticism of the people regarding the efficacy of vaccination.

Dr. J. P. Cox of Superior read a paper on "Variola." Vaccination renders the subject absolutely immune from smallpox. Every vaccination can and should be made aseptic. But until non-belief in vaccination is overcome, vaccination and quarantine should work hand in hand to afford the maximum of immunity. The manufacture of vaccine should be more carefully supervised by the government in order to prevent the distribution of impure virus.

DISCUSSION.

DR. H. J. O'BRIEN of Superior: The physician should follow up his vaccination. If this were done there would be less scepticism as to the value of vaccination.

DR. W. T. SARLES of Sparta: Vaccination affords absolute immunity, but quarantine should be retained until compulsory vaccination is established. In vaccinating wash the arm with warm water and soap and dry it with gauze; put the lymph on; scarify the arm; let the case go without dressing, for secondary infection cannot take place for at least four days; at the end of four days a light gauze dressing or a gelatine shield may be put on. You never get secondary infection until the subject gets a sore arm.

DR. EICHER: I would like to see some change made in the quarantine laws which would give the people an opportunity to realize that the medical profession of the state have absolute faith in vaccination.

DR. E. L. BOOTHBY of Hammond opposed the abolition of quarantine in small pox cases. Faulty technique has shaken the faith of the people in vaccination. Instruments should be as thoroughly sterilized as in surgical cases; also sterilize the arm. There is much worthless lymph on the market.

DR. C. A. ARMSTRONG of Boscobel argued for simplicity of technique. A little sterile cotton, sterile gauze, zinc oxide ointment, the needle that comes with the tube, and a match, are all you need.

DR. PERRY: The Health Department should furnish uniform vaccination certificates; if that were done the work would be more carefully looked after and successfully followed out.

DR. FOERSTER of Milwaukee: If you abolish quarantine what are you going to do about Christian Scientists and others who refuse vaccination? The disease will spread through them. Many graduates of medical schools have never seen a case of contagious disease. How can they make a differential diagnosis? In vaccinating little children it is well to use a 10 per cent. solution of caustic potash to dissolve off the superficial layers of the skin.

DR. HARPER: The objection to raising quarantine in small pox is the injustice it would do to innocent children. However, there is a law now in effect which practically makes vaccination of school children compulsory. It is not safe to rely on disinfection. Many of the disinfectants on the market are worthless.

The Annual Address in Surgery, by Dr. George W. Crile of Cleveland, Professor of Surgery in the Medical Department of the Western Reserve University, on the "Direct Transfusion of Blood," related to certain clinical and experimental observations on the symptomatology and treatment of hemorrhage and some observations on the direct transfusion of blood. The paper treated of the technique, mechanics and therapeutics of the subject and eight cases were described. In these cases the direct transfusion of similar blood has afforded (a) complete relief for acute hemorrhage, (b) complete stoppage of hemorrhage in four cases of chronic pathologic hemorrhage from the bowels and partial stoppage and relief in a similar case, and (c) complete stoppage of uterine, nasal, subcutaneous and rectal hemorrhages in a case of carcinoma of the gall bladder, with sufficient stimulation of the patient to permit an exploratory laparotomy.

In the "Symposium on Puerperal Sepsis," the diagnosis and clinical history were discussed and cases described by Dr. George Saunders of Superior.

Dr. J. M. Dodd of Ashland discussed the surgical treatment. He said: We have a septic wound to treat and we must (a) remove the septic material as far as possible, (b) neutralize the septic matter that remains, and (c) provide drainage. The septic membrane should be handled very gently. Irrigation should be employed. Iodoform is an ideal remedy.

Dr. H. L. Rosenberry of Wausau: The serum treatment, begun early, is destined, if we reason from analogy, to be ideal.

Dr. Herman Gasser of Platteville read a paper on "What does Disease mean."

The following resolution was adopted: Resolved that the State Medical Society of Wisconsin heartily endorses the action of the State Legislature in establishing a college of medicine at the University of Wisconsin, and the proposed plan of the Regents to develop the important departments of pharmacology and pathology.

The secretary summarized the proceedings of the House of Delegates, which were adopted. The new president, Dr. W. E. Ground of Superior, was inducted into office. Various resolutions of thanks were adopted.

Adjourned.

Proceedings of House of Delegates of the State Medical Society of Wisconsin, Superior.

Wednesday, August 21st, 1907, 3:00 p. m. House called to order by President L. H. Pelton. Roll call showed a quorum present.

Report of delegates to the American Medical Association was presented by Dr. W. T. Sarles. Dr. Sarles quoted the report of the reference committee on reports of officers, which endorsed opposition to the course of certain physicians organizing and conducting incompetent medical schools; which recommended that the members of the American Medical Association confine their prescriptions to articles contained in the United States Pharmacopoeia, the National Formulary, or such as have been approved by the Council on Pharmacy and Chemistry; endorsed a minimum fee of $5.00 for life insurance examinations; and the committee heartily approved the work of the General Secretary. The report commended the manner in which the trustees had conducted the affairs of the Association, and commended the publication of the American Medical Directory. The report of the Board of Trustees commended the work of Dr. J. M. McCormack.

The American Medical Association passed a resolution looking toward freeing the medical profession from nostrum control.

Report adopted.

Dr. E. L. Boothby of Hammond presented reports from the various councilors, showing an improved condition of affairs. Report accepted.

The secretary's and treasurer's reports were read and referred to the council.

Three members of the Council were appointed: Dr. C. A. Armstrong of the Fourth; Dr. Dewey of the First; and Dr. G. T. Dawley of the Ninth district.

Dr. L. H. Pelton of Waupaca was elected a delegate to the American Medical Association. Dr. G. Windesheim was elected his alternate, Drs. Sarles and Caples holding over.

The appointment of a Committee on Scientific Work was deferred until the election of the incoming president.

The present Committee on Public Policy and Legislation was re-elected.

Dr. J. J. McGovern presented a report from the committee on the work done during the past year. He said three bills had passed the legislature last winter, namely: a bill preventing advertising in any newspaper in Wisconsin with reference to any diseases pertaining to the sexual organs; and since the 1st of July there has been no advertisement in the newspapers of Wisconsin along that line. One of the bills prohibits the newspaper from taking the advertisement and another prohibits any one from doing any such advertising. A third bill embodies the Indiana law regarding the definition of medicine. Great progress has been made this last winter in regard to medical legislation.

Dr. J. V. Mears was re-elected as Councilor from the Fifth district. Dr. C. J. Combs of Oshkosh was elected Councilor of the Sixth district.

The resignation of Dr. W. T. Sarles of the Seventh district was accepted and Dr. Edward Evans was appointed as Councilor of the district.

The following committee on nominations was elected:

1st Dist., Dr. Hugo Philler of Waukesha; 2d, Dr. H. J. Stalker of Kenosha; 3d, Dr. L. F. Bennett of Beloit; 4th, Dr. C. A. Armstrong of Boscobel; 5th, Dr. S. S. Hall of Ripon; 6th, Dr. H. W. Abraham of Appleton; 7th, Dr. Edward Evans of La Crosse; 8th, Dr. W. B. Eicher of Bonduel; 9th, Dr. G. T. Dawley of New London; 10th, Dr. I. G. Babcock of Cumberland; 11th, Dr. G. W. Saunders of Superior; 12th, Dr. Henry B. Hitz of Milwaukee

A committee consisting of Drs. S. H. Pelton, J. J. McGovern and C. S. Sheldon, was appointed to consider the question of medical defense and report at the next meeting.

Recess.

August 22d, 1907, 1:30 p. m. The House was called to order, quorum present, minutes of previous meeting read and approved.

On motion the action of the council to pay expenses of delegates to the council on medical legislation, A. M. A., was approved and Dr. G. E. Seaman was elected delegate.

The protective insurance committee was enlarged to seven, and Drs. H. B. Hitz and G. E. Seaman of Milwaukee, Julius Noer of Stoughton and Edward Evans of La Crosse were added, making the whole committee to consist of Drs. G. E. Seaman, J. J. McGovern and H. B. Hitz of Milwaukee, Edward Evans of La Crosse, Julius Noer of Stoughton, L. H. Pelton of Waupaca, and C. S. Sheldon of Madison.

Dr. Noer introduced the following resolution, which was adopted: "Resolved that the committee on medical defense be and hereby are instructed to prepare resolutions for submission to the county societies for a referendum vote on the question of protective insurance recommended in Dr. Sheldon's report for 1907. Be it further resolved that in case the vote by the county societies is favorable, then the above named medical defense committee shall be and hereby are empowered and instructed to proceed with the organization of an insurance association in connection with the state medical society. Provided, that such organization shall not become operative till after the question has been submitted to and passed upon by the council of the Wisconsin State Medical Society at its meeting in January, 1908."

The state secretary was instructed to correspond with the secretary of the American Medical Association to ascertain if any former members of the state society, not now members of a county society, are still members of the A. M. A.

Recess.

FRIDAY, AUGUST 23D, 1907, 8:30 A. M.

Meeting called to order by the president. Minutes of previous meeting read and approved, and report of committee on nominations received and adopted.

The following officers were elected:

President, W. E. Ground of Superior.

1st Vice President, Byron M. Caples of Waukesha.

2d Vice President, Herman Gasser of Platteville.

3d Vice President, E. S. Hayes of Eau Claire.

Milwaukee was selected as the place of holding the next annual meeting. Time to be fixed later.

The annual report of the "Committee on Public Policy and Legislation" was submitted in executive session and accepted.

A motion was made by Dr. Sarles, seconded, and carried unani-

mously, that the Council be empowered to make such per capita assessment as they see fit, not to exceed one dollar, to defray the expenses of the legislative committee.

By a unanimous vote the contract with the WISCONSIN MEDICAL JOURNAL for the publication of the proceedings of the Society was renewed for another year.

The following resolution offered by Dr. Sarles was unanimously adopted:

Whereas, certain old line life insurance companies insist upon the payment of but three dollars for examination, including the chemical examination of urine, be it

Resolved, that it is the sense of this Society that no such examination should be made for less than $5.00.

The following resolution was unanimously adopted:

Resolved, that it is the sense of this Society that the minimum fee for examination in assessment societies should be $2.00.

The following resolution was unanimously adopted:

"*Whereas*, the Public Health Defense League has been organized for the purpose of protecting against imposition by quacks and patent medicine concerns, therefore be it

Resolved, that the State Medical Society of Wisconsin congratulates the Public Health Defense League and pledges its support in furtherance of these objects."

Adjourned.

SHEBOYGAN COUNTY MEDICAL SOCIETY.

A regular meeting of the Sheboygan County Medical Society was held July 31, 1911, with ten members and two visitors present. Dr. Wm. VanZanten was elected to membership. There being a vacancy on the board of censors, Dr. J. C. Fiero was elected to fill the vacancy. A committee consisting of Drs. C. Tarrant, Center and Stannard was appointed to draw up a set of suitable resolutions assuring the Sisters of St. Francis of the hearty moral support of the Society in the building of the proposed new hospital. The committee to whom was referred the subject of Contract Practice unanimously reported in favor of the abolition of contract practice and submitted the following agreement with the suggestion that the Secretary make an effort to secure the signatures of every physician practicing in the city. The report was unanimously accepted and the committee discharged.

Realizing that contract practice is an evil which reacts to the detriment of the best interests of the medical profession in that it tends to deprive physicians of a large part of their legitimate income, and that the welfare of the medical profession and the laity is best promoted by its complete [illegible]

We, the members of the Sheboygan County Medical Society and the members of the medical profession in sympathy with them practicing in the City of Sheboygan, do hereby promise and agree that on and after this date, we will not enter into any verbal or written agreement or contract, of any kind whatsoever, with any corporation, lodge, society, or fraternal organization to render to the employees of any corporation, to the members of any lodge, society, or fraternal organization, or their families, professional services of any character whatsoever, for any consideration or fee not based on the amount and character of the services rendered and equal to the fees usually charged to other individuals or families, not employees or members of such organization, for similar services, subject to the following conditions:

1. This agreement is not to go into effect, until it has been signed by all physicians practicing in the City of Sheboygan or such proportion thereof as the signers of this agreement may deem sufficient to make the agreement effective.

2. Any physician may contract to render medical or surgical services to any corporation or society, where the fees therefor, are based on the amount and character of such services, and are not less than the fees usually charged individuals, not employees or members of such organizations, for similar services.

3. This agreement is not to affect in any way whatsoever, the contracts existing between the United States Government and the physician of the Marine Hospital Service, between the county and the county physician, and between the city and the city physician and the health officer.

4. Present contracts shall be permitted to remain in force until their expiration, but it is assumed that no such contract is for a longer period than twelve months from the date of signing thereof.

It was moved and seconded and carried that the regular monthly meetings be suspended during the months of August and September. There being no further business the meeting adjourned subject to a call of the president if any matter of unusual importance demanded a session during the vacation months. W. F. ZIERATH, M. D., *Secretary*.

Just before the session was called to order it was learned that the Mutual Life Insurance Company and the Equitable Life of New York had restored the former flat fee of $5.00 for insurance examinations and that it was highly likely that the New York Life Insurance Company would do likewise. The announcement was received with a feeling of gratification in view of the action of our county society last January in adopting an agreement to refuse to make examinations for less than $5.00.

The Mutual Life of New York made strenuous efforts to induce a number of physicians to accept the position of examiner at the reduced rate but their efforts met with a flat refusal in all cases. The signers adhered to the agreement firmly even though at times they were promised a fee of $5.00. It is sincerely hoped that these companies will promptly reappoint their old examiners whom they dismissed when the agreement was made known to them. Such an action on their part will do much to stimulate a feeling of good will toward them and secure the co-operation of physicians in their soliciting. Clause V, of the agreement, specifically announces that no one of the signers

will accept the position of examiner when the former examiner was dismissed because of this action on the part of the society and we feel quite confident that that particular clause will be adherred to as strictly by the fifty signers as were the other clauses. Any attempt on the part of the Insurance Companies to do otherwise than reappoint the old examiners will probably only succeed in making a bad matter worse, and react to their own detriment.

Even as it is, many of us feel that we would be doing our fellow citizens a great favor in exercising our influence to prevent them from taking out insurance policies in companies where business affairs have been found to be so notoriously bad as revealed in the investigations in New York not so long ago.

All in all, this insurance matter has reacted greatly to the benefit of the medical profession. We were thus forced into organized resistance to oppression and we now know that we can accomplish results if we will but act in unity and harmony.

The Sheboygan County Medical Society, too, is proud of the stand she took and it is with a feeling of elation and gratification that the news was received and we congratulate all those other county societies and the medical profession in the part they took to resist this infamous attempt to trample on our rights. But let the good work go on. We have learned that in unity there is strength, now let us strike at the other hydra-headed monster, contract practice, and consign it to the bone yard of oblivion. Let every county society in the state work in concert. All it needs is concentrated effort, push and enthusiasm. Let us all hang together and not be "stung" individually.

Promptly after the action of the society in adopting the anti-contract practice agreement the Secretary "got busy." In less than twenty-four hours all but four of the twenty-seven practicing physicians in the city signed the resolutions. One of the four is out of town, one is ill, and two refused to sign, but the Secretary is quite confident that the sense of justice and fairness in these two men is such, that when they are convinced of the great amount of good that will redound to the whole profession and themselves, they will gladly fall in line and we will hit that old nuisance and exciter of discord such a whack that we will never hear of it again. Such is our fervent hope at least.

The men are enthusiastically in favor of the agreement. Many were not present at the meeting when the agreement was adopted, but when approached and informed of the intent of the document presented to them, the majority signed without even reading it. "If it is against contract work in any form, I'm for it heart and soul" was the usual answer to the request for the doctor's autograph. Such is the feeling all over the state I do not hesitate to say. Let us wake up to the fact that all that is needed is push and energy. One or two men mindful of the best interest of their profession and bubbling over with enthusiasm can swing everyone into line. The seed has been sown and we now realize that we are reaping a crop of evils. The sentiment is decidedly "agin the old thing." All it needs is crystalization, so get up your agreement and go ahead.

That these subjects occupy a prominent place in the minds of the profession, is evidenced by the numerous letters received by the Secretary from the other county societies in the state, inquiring into the workings of the insur-

ance resolutions and the Business Association recently re-established here.

I sincerely hope in the next communication to inform you that our two erring brothers have been converted, and we are riding in the "Band Wagon."

W. F. ZIERATH.

TAYLOR COUNTY MEDICAL SOCIETY.

A very successful meeting of the Taylor County Medical Society was held August 6, 1907. The following officers were elected: President, Dr. S. S. Taylor, Rib Lake; vice-president, Dr. G. Weikman, Rib Lake; secretary and treasurer, Dr. G. McClure, Westboro; censors, Drs. T. M. Miller, E. Le Sage and C. E. Nystrum, all of Medford.

G. MCCLURE, M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

The second quarterly meeting of the Fox River Valley Medical Society was held jointly with the Upper Peninsula Medical Society and the following program was successfully carried out as arranged.

1. *Appendicitis*, Dr. R. E. Minehan, Green Bay. Discussion was opened by Dr. A. W. Hornbogen, of Marquette, Mich., and was generally participated in by most members of the society.

2. *Acute Mastoiditis*, Dr. C. R. Ellwood of Menominee, Mich. Discussion was opened by Dr. Elliott, of Escanaba, Mich., followed by Dr. Wright of Marinette and Dr. Todd of Neenah.

sion opened by Dr. Schroeder of Marinette and followed by members of the

3. *Accouchment Force*, Dr. E. T. Abrams of Dollar Bay, Mich. Discus-society.

The papers of this meeting were well written, extremely practical, and were ably and generally discussed, and all those present acquired additional practical knowledge on subjects covered by general every-day practice.

In the evening a banquet at the S. M. Stephenson Hotel was tendered the visiting members of the Upper Peninsula Medical Society and the Fox River Valley Medical Society by the members of the Menominee and Marinette County Medical Societies.

Toasts were responded to by Drs. R. E. and J. R. Minehan of Green Bay, J. A. Crowell of Iron Mountain, and A. W. Hornbogen of Marquette, Mich. The occasion was a most enjoyable one and will be long remembered by all present. Dr. B. T. Phillips of Menominee acted as toast master.

H. P. RHODE, M. D., *Secretary.*

BOOK REVIEWS.

The Technique of Modern Operations for Hernia. By ALEXANDER HUGH FERGUSON. Chicago, 1907. Cleveland Press.

The author states in his preface that the work is intended to present only the purely surgical phase of hernia thereby avoiding discussion of etiology,

symptoms, diagnosis, and treatment other than surgical, and for the excellent reason that this can be found in all text-books on surgery. It is very regretable that this wise limitation had not been rigidly followed, as it would have eliminated from an otherwise exceptionally valuable work those ubiquitous compilations of questionable, if popular, text-book science and the repetitions of the minutiæ of surgical technique equally useless in book form to both students and practitioners. Too frequently utter impatience with the general tendency to padding is unavoidable, and occasionally, as for example on page 88 where it is stated that "anthracosis" has been reported as consequent upon operations for the cure of hernia, a saving sense of the ridiculous is a necessity.

On the other hand it were a rank injustice to disguise the fact that here and there even in the apparently superfluous pages are excerpts of first hand surgical wisdom of exceptional merit. Professor Ferguson's fair-mindedness, his large experience and his notable keenness of clinical perception, have made it possible for him to bring together as a personal contribution to the subject proper, an array of facts invaluable to anyone attempting surgical practice, thus justifying this publication even in an age of wanton over-production in medical literature. Should the second edition be devoted entirely to the discussion of hernia from the standpoint of practical surgery, to the exclusion of theoretical and general surgical considerations, it would permit the author to present the subject not only in accordance with his greatest capabilities but also in easily accessible form, which would make it a most useful handbook wherever hernias are properly treated.

The illustrations are fairly numerous, well chosen, and also sufficiently accurate and diagrammatic to be useful. The press work compares very favorably with other productions from the same publishers. (J. L. Y.)

Practical Dermatology, by BERNARD WOLFF, M. D., Clinical Professor of Diseases of the Skin in the Atlanta College of Physicians and Surgeons, Atlanta, Ga. 288 pages, illustrated. Cleveland Press, Chicago, 1906.

The purpose of the book is to present in miniature the salient features of diseases of the skin. That the subject of dermatology can be well presented in miniature has never appeared possible to the reviewer, and his views have not undergone revision since reading this book. Illustrations of dermatological conditions are notoriously difficult of execution, and in this instance they fall wide of their purpose, for, with but few exceptions, they are uncommonly poor reproductions.

The individual diseases of the skin are arranged in their alphabetical order. As is to be expected in a manual, the text is condensed within narrowest limits in most instances, though several subjects receive more lengthy consideration. An extensive formulary is appended, which largely comprises the standard formulæ in use in dermatological practice. O. H. F.

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ADDRESSES.

HEMORRHAGE AND TRANSFUSION.*

By GEORGE CRILE, M. D.,

CLEVELAND, OHIO.

In this paper consideration will be given only to certain clinical and experimental observations on the symptomatology and treatment of hemorrhage, and some observations on the direct transfusion of blood. In the course of the past two years we have had the opportunity of making definite observations on bleeding in about forty patients. These observations corroborated similar ones in the laboratory. The most important data was obtained in three instances of extreme blood-letting for therapeutic purposes. In two of these patients, weighing 130 and 142 pounds respectively, 1,500 c.c. of blood were withdrawn. From the third patient, weighing 140 pounds, 1,750 c.c. were withdrawn.

The summary of the phenomena and the deductions drawn may be stated as follows: in the process of hemorrhage, as the volume of blood is diminished, the vascular system compensates for the loss of blood by contracting the vessels, and thus maintaining the normal blood pressure. Compensation is also brought about in part by the transference of intercellular lymph into the blood vessels.

While the increased contraction of the blood vessels may be done on the instant, the transference of fluid from the tissues to the vessels requires a longer time. In consequence, the change in the blood picture, i. e., the red count, the hemoglobin estimation, and the specific gravity, may not appear to an appreciable degree until a considerable amount of blood is lost. Likewise, the blood pressure being for a time well maintained by cardio-vascular action, but little if any change in

*Address in Surgery before the State Medical Society of Wisconsin, Superior, Aug. 23, 1907.

the blood pressure or the pulse rate may be for a time noted. There is one change in the blood picture that appears more promptly, and that is the increase in the leucocyte count. This feature I shall discuss later.

In the course of the withdrawal of blood there comes a time when the circulation has reached its maximum compensation. Further loss of blood is then likely to be followed by collapse. The first indications of impending collapse are slight restlessness, and sighing, or irregular respiratory rhythm. If the withdrawal of blood is terminated at this point the patient may not faint. On the other hand, the removal of a relatively small additional amount may cause collapse. From this we reach the important conclusion that the blood picture and the pulse observations give a very imperfect idea of the total volume of blood in the circulation. There is a sign, however, that gives a valuable clue to the quantity of blood lost; namely, the shrinking of the superficial tissues. Increasing experience has taught us that this is the most reliable sign indicating the quantity of blood lost. This shrinking is most strikingly displayed in the face. The orbital spaces and the naso-labial folds deepen, the lips become thinner, the nose pinched. The facies is gradually transformed from the normal into a shrunken, angular lifeless appearance. At some stages, as in great fatigue and excessive loss of sleep, similar gross changes may be noted in the hands and other parts.

The blood examinations show progressive changes which begin immediately, but which may not end for four or five, or even more days. The picture presented by a typical acute hemorrhage is as follows: (1) there is a fall in the number of red corpuscles, (2) in the per cent. of hemoglobin, and (3) a rise in the number of white corpuscles. The changes in the red corpuscles and hemoglobin seem to be directly dependent on the amount of blood lost, but this does not apply equally to the changes in the white corpuscles. From their very nature they are more independent and more easily influenced by different factors which do not influence the red corpuscles and the hemoglobin. In practically all the transfusion cases which served as a basis in studying hemorrhage in man, the number of white corpuscles of the donors rose either during or immediately after the transfusion, and the point to be particularly emphasized is that the maximum rise occurred early. The return to the original level usually took from one to two days, although sometimes longer, but unless the blood counts were made early the full significance of the reaction to the hemorrhage was not

appreciated. In one case the increase amounted to 26,000 corpuscles by the end of the transfusion, but usually it was very much less than this.

In a research into the treatment of hemorrhage it was found that strychnin was of only temporary and slight value in raising the blood pressure; that the deeper the hemorrhage, the larger the dose required to exert the maximum effect; that digitalis also assisted in raising the blood pressure, but that in some instances the anemic heart was suddenly arrested under the maximum dose; that posture and bandaging the trunk and extremities were of great therapeutic value; but that of greatest value among the commonly employed remedies was the infusion of normal saline solution. Unfortunately this had two limitations which prevented it from being the ideal treatment.

In the first place, it could carry but little oxygen as compared with blood, and could serve as a substitute for blood only to a certain degree. In the second place, saline solution did not remain permanently in the blood vessels, though it is true that it remained in greater quantity and for a longer time in the presence of hemorrhage than in other conditions. If given in excessive dosage it accumulated in the tissues and organs particularly, even to the extent of so filling them as to mechanically embarrass or arrest respiration. Following an effort to withdraw the last drop of blood possible prior to a transfusion of blood for sarcoma, 1450 c. c. of saline infusion were slowly given intravenously, and near the end of the transfusion the patient vomited a large quantity of clear fluid, which proved to be largely composed of saline solution, therefore showing that a large part of the infusion had passed into the stomach.

Having shown the limitations of drugs and saline infusions in the treatment of hemorrhage, the endeavor was made to determine the limitations and value of the transfusion of similar blood, as the great bulk of clinical experience, extending over almost all of the last century, apparently shows that one individual may safely receive blood from another individual of the same species. Right here a word of caution should be said. In recent times Ehrlich and Morganroth and others, and, more recently still, Hektoen, have shown that changes may occur following the transfusion of similar blood. The result of our experience up to the present time has been that we have never been able to ascertain that harm has been caused to our patients by such changes, even if they

have occurred. Nevertheless, we must be continually on our guard against the possibility of such occurrence, for while we may safely transfuse in most conditions, we must remember that the blood of the recipient in certain pathologic conditions might be such as to cause fatal hemolysis. We have sought in vain in both animals and patients for evidences of hemolysis following transfusion.

As in giving saline infusions, we have found that the effect of transfusing blood depends on the amount of blood transfused. If too much is given it passes out of the vessels into the abdominal and pleural cavities, particularly from the liver and lungs. However, it does not pass out with anywhere near the readiness that saline solution does, and therefore is much superior to it in raising the blood pressure, and particularly in maintaining the rise. In this repect, volume for volume, much more blood than saline solution may be given. Moreover, it actually replaces what is lost instead of acting merely as a substitute. With animals for hemorrhage at least, it affords a perfect treatment.

Considered from the clinical standpoint, the subject naturally falls under three heads: (1) the technique, (2) the mechanics, and (3) the therapeutics.

THE TECHNIQUE.—The endeavor has long been made to perfect the technique of transfusion, and I will not try to discuss the historical side of the question in this short paper. It is only recently that the work of Carrel and others has suggested and made possible the actual union of the vascular system of one individual with that of another, with the assurance of entire freedom from clot formation in the vessels, air embolism, and the maintenance of an uninterrupted flow. At first we employed only the end to end anastomosis of Carrel, using actual suture of the vessels, but recently we have elaborated an idea which was probably first employed in the anastomosis of blood vessels by Queirolo (Moleschott Untersuch., 1895, XV, 235-6), and later worked out more fully by Payr and others, that is, the use of a metal tube through which one vessel is drawn, folded back over the tube and tied; and then the other vessel drawn over the turned-back cuff and also tied. This affords a direct communication between the vessels, through which the blood passes and yet touches only the endothelial lining of each.

We have found that in order to get a sufficient head of flow it was necessary to unite in this way the proximal end of the severed radial artery of the donor with the proximal end of any

superficial vein in the arm of the recipient, performing the operation under rigid asepsis and cocain anesthesia, and controlling the blood flow with the "Crile" clamp. As I have previously described other details of the technique in other places I shall not go into them now.

THE MECHANICS OF TRANSFUSION.—Some of the points to be considered have already been suggested by what has previously been said. Of these, I may mention the question of transfusing too much blood and having it leave the vascular system of the recipient. The limitation of the amount transfused must be regulated by experience, the length of time of the transfusion, the appearance of the recipient, and also by the appearance of the donor, the welfare of the latter being of as much importance as that of the recipient. With regard to the time, I may say that up to the time of writing this paper the shortest time of transfusion in my series of cases has been eight minutes; the longest, one hour; and the average, 33 minutes.

In reality the chief question to be considered under this head is that of causing acute dilatation of the heart of the recipient by reason of too great or too rapid a flow of blood from the donor. This must be guarded against with great care, and it may be necessary to reduce the total blood mass of the recipient by bleeding him before the transfusion. If any signs of acute dilatation occur—embarrassment of the heart's action, increased rapidity of respiration, etc.—the flow must be stopped at once until they subside, and then allowed to go on very gradually and carefully.

THE THERAPEUTICS OF TRANSFUSION.—I now come to the most important part of the subject, which I have the honor of presenting to you to-day, that of the therapeutic value of transfusion. Having mastered the technique and the control of the mechanics of transfusion, we must ask ourselves the question, what may we hope to accomplish by means of transfusion? I have confined myself, to-day, solely to the question of hemorrhage, acute and chronic.

In the experimental treatment of hemorrhage of any degree of severity in dogs, recovery has always followed if there still remained a feeble heart beat, even if respiration had entirely ceased. Moreover, the animal would then resume all its previous activities as if its own blood were still circulating. Clinically, equally striking results have been obtained.

CASE I.—Male, age 23 years. Diagnosis; nephrolithiasis.

Family History.—Negative.

Previous History.—Three years ago was in the Lutheran Hospital for a trouble similar to the present one. Otherwise negative.

Complaint.—Three months ago he was refused life insurance after an examination of the urine. At the time he felt pretty well, but had occasional twinges of pain in his left side. This was practically all there was in the way of symptoms up to the time of operation.

Operation.—Four large stones were removed from the pelvis of the kidney where they had caused local infection. Around the stones there was a vascular membrane. The renal parenchyma was unusually soft and extremely vascular. The wound formed by incising the kidney was packed with gauze, and, while at first there was considerable hemorrhage, it was readily controlled at the time of and immediately after the operation. Later there was only a slight amount of oozing from the dressings, but there was rather an unusual amount of discoloration of the urine. This gradually increased in spite of all the measures taken to prevent it, until by the evening of the fifth day the condition of the patient had become critical, there having been a very profuse hemorrhage both from the ureter and through the dressings when the latter were last changed. The hemoglobin was reduced to 25 per cent., the red cells to 1,800,000; the pulse was 160 beats per minute and hardly perceptible, the respirations 48 per minute and gasping, and the patient was unconscious. Treatment by posture, bandaging, saline infusions, stimulants, adrenalin chlorid, etc., was without avail. It was clear that the terminal stage was at hand and all the ordinary resources exhausted. It seemed, therefore, a suitable case for transfusion and one which would afford a crucial test of its value. A donor in the person of the patient's brother was at hand.

First Transfusion.—Under local anesthesia and ¼ grain of morphine an anastomosis between the proximal end of the radial artery of the donor and the proximal end of the basilic vein of the donee was made, and the blood was allowed to pass over for 30 minutes. As a result the donee (the patient), promptly became conscious, his pulse and respiration fell, the blood pressure rose from 63 to 94 millimetres mercury, the hemoglobin from 28 to 50 per cent., and the red cells from 1,800,000 to 2,900,000. On the other hand, the hemoglobin of the donner fell from 100 to 75 per cent., the red cells from 5,500,000 to 4,600,000 per cubic millimetre, and the blood pressure from 97 to 70 mm. mercury. He suffered nothing

more than a slight temporary discomfort which was more mental than physical.

The transfusion itself would in this case have only temporarily relieved the condition of the patient as long as the cause of the hemorrhage remained. However, as this relief was apparently great enough to warrant attacking the cause by carrying out the original plan of doing a nephrectomy, this was done, and in spite of difficulty in removing the kidney the patient stood the operation well. Ether was used as the anesthetic.

The following morning the condition of the patient was unsatisfactory on account of decomposing blood clots filling the bladder. A suprapubic cystotomy was done under cocain, and the clots and a large amount of foul smelling urine were washed out. During the following day there was a total suppression of urine and marked uremia. This was overcome during the following night and the next day the patient was better. Improvement continued for two days, when a large part of the lumbar wound was healed. A severe cystitis continued. Then, without warning, there was a profuse hemorrhage from the bladder which continued for two days in spite of all ordinary forms of treatment. The red cells fell to 1,900,000 and the hemoglobin to 25 per cent. The pulse rose to 130, and the condition of the patient was again most critical.

Second Transfusion.—This time another brother of the patient served as donor. The anastomosis was made as before. The patient's condition immediately improved again, the red count reaching 3,000,000, and the hemoglobin 54 per cent. The pale and inactive granulations in the remainder of the lumbar wound became red and healthy. There was no further hemorrhage, and from this time on the red count rose until it reached 4,800,000. The patient was discharged from the hospital as cured on the 25th day and has been in excellent health up to the present time, (August, 1907).

CASE II.—Male, age 47 years. Diagnosis; nephrolithiasis.

Family History.—Negative.

Previous History.—Negative.

Complaint.—Five years ago the patient had a severe attack of pain in his left side, which he thought was due to his having done heavy work at the time. Since then the pain has returned at intervals, but has never been severe enough to confine him to bed. The pain became very severe about six weeks ago, and during the last four weeks he has not been able to work.

Operation.—An abdominal incision and exploration revealed on palpation a probable stone in the left kidney. A lumbar incision was then made on the left side and one 2½x3x1¼ cm. stone and two smaller ones were removed from the pelvis of the left kidney. The renal wound was closed with plain catgut and the skin wound drained and closed with catgut and silkworm gut.

Secondary hemorrhage occurred shortly after and continued for thirteen days, and finally his red count was reduced to 1,800,000, hemoglobin to 28 per cent., and he had been delirious for two days. A transfusion was done, and as the fresh blood flowed into his vessels his delirium gradually lessened, and while on the table and during the transfusion entirely disappeared. The lumbar wounds healed but the abdominal wound, although resutured twice, never showed a sign of repair, finally ending in peritonitis and death. The blood count, without any further treatment, however, was maintained to the end.

CASE III.—Male, age 69. Diagnosis; essential renal hematuria.

Family History.—Negative.

Previous History.—Blood was first noticed in the urine five years ago. Three years ago he had renal colic, passed 3 "stones" and then all hematuria stopped for 21 months. Has passed clots recently. General weakness. The blood showed 35 per cent hemoglobin, 2,708,000 reds and 6,400 whites.

Operation.—The donor was the patient's son, and the blood was allowed to pass for 40 minutes. A marked change was noted in the color of the patient's lips and cheeks and he felt very much stronger. Two days later a nephrectomy was successfully done, and fifteen days later he was discharged after an uneventful recovery, in good condition. The blood immediately after the transfusion showed 80 per cent. hemoglobin, 2,280,000 reds, and 10,600 whites, and two days before he was discharged 85 per cent. hemoglobin, 4,056,000 reds, and 7,600 whites.

In the interval between the transfusion and the operation the amount of blood in the urine was diminished, but on account of the operation being done so soon, the ultimate effect on the bleeding could not be determined. In no case has pathologic bleeding stopped *immediately* after the transfusion.

CASE IV.—Male, age 30 years. Diagnosis; bleeding from the rectum (on one occasion acid-fast bacilli were found, but they were not found again after repeated examinations).

Family History.—Negative.

Previous History.—The patient gave a history of having noticed bright blood in the stool 18 months before entrance. His blood on Dec. 16, 1906, showed 4,952,000 reds, 90 per cent. hemoglobin, and 10,400 whites. On Jan. 13, 1907, there were 4,880,000 reds, 95 per cent. hemoglobin and 6,040 whites. Up to the latter date the patient had become progressively weaker and more and more blood was lost in the stools. That there was not a corresponding change in the blood findings was doubtless due to the fact that a great deal of liquid was also lost in the stools, so that the relative proportion was maintained. Rectal irrigations with argyrol had failed to give relief. After consultation transfusion was decided upon.

Operation.—The donor was a strong, healthy man (not related). On Jan. 14th, the donee was bled for 20 minutes before transfusing and was then transfused for 54 minutes. The immediate effect was marked improvement in the color of his face and in his intelligence, and this was followed by rapid improvement in his general condition. The next day he showed the usual slight febrile reaction, but on the fourth day his temperature was normal. The amount of blood in the stools immediately began to diminish, and by the 26th (12 days) the stools were free from blood. The proctoscopic examination showed a startlingly great improvement in the rectal mucosa, as the edematous blood-tinged appearance of the first examination had changed to fairly healthy mucosa. The patient was discharged on the 26th. On the 25th there were 5,006,000 reds, 84 per cent. hemoglobin, and 14,000 whites.

Up to the present time (August, 1907), there have been occasional slight recurrences of the bleeding in the stools, so that while the relief has been great the cure has not been a permanent one.

CASE V.—Male, age 24 years. Diagnosis; hemorrhage from bowels.

Family History.—Negative.

Previous History.—Three years ago the patient had blood streaked stools and general abdominal uneasiness which had continued since with intervals of good health. At present is losing about 5 c. c. of blood each day.

Operation.—On Dec. 10th transfusion was performed. The blood before transfusing showed 95 per cent. hemoglobin, 5,600,000 reds, and 13,600 whites. After transfusing there were on the next day 5,200,000 reds, 10,000 whites, and 95 per cent. hemoglobin. Up to Dec. 29th, there were gradually diminishing amounts of

blood in the stools, and from that time until the discharge of the patient on Jan. 15th there was no blood present and there has been no recurrence up to date, (Aug., 1907).

CASE VI.—Male, age 27 years. Diagnosis; anemia.

Family History.—Negative.

Previous History.—Did not have the usual diseases of childhood. When a child had a fall which was followed by a severe hemorrhage from the rectum, and has always had more or less hemorrhage ever since, always more severe when straining at stool or when suffering from cold. Has also had some prolapse of rectum, usually occurring when at stool, the bleeding being more severe at this time. Was operated on October 10, 1906 for hemorrhoids and apparently made a good recovery, leaving the hospital at the end of about 10 days. On the next day suffered a severe hemorrhage and returned to the hospital.

Operation.—On the 13th day following first operation Dr. Lower sutured the bleeding points but hemorrhage still continued up to the day of transfusion. At the time of transfusion had a severe chill, temperature 102.4, pulse 140 to 160 which soon fell to normal and has so remained. Up to the present time there has been but very slight recurrence.

CASE VII.—Female, age about 50 years. Diagnosis; hemorrhages from ulceration of the rectum.

Family History.—Negative.

Previous History.—The menopause occurred 3 years ago. Has been very constipated for nine months. Five months previous to admittance she had a severe hemorrhage per rectum, and since then has bled from the rectum and has had occasional fainting spells. One month after this she had severe vomiting spells for 14 days. She has suffered from insomnia and has had considerable headache. At the time of admittance she was very weak, short of breath and apathetic. Her anemia was extreme. The hemoglobin was approximately 12 per cent., and the red cells 1,200,000. She was so weak that it was not safe to anesthetize her for the purpose of endeavoring to determine the source of the hemorrhage.

Operation.—The anastomosis was made as in the other cases, the donor being the patient's son. The blood was allowed to pass over slowly for 58 minutes. The transformation in the appearance of the face of the patient as the blood passed into her vessels was extraordinary. The lemon yellow color first slowly gave way in spots to white, and then to pink, the lips and ears became pink and then red, and the changes gradually spread over the

entire countenance. Before the transfusion the general appearance was that of a wrinkled old woman of sixty-five or seventy years, but after it was over the wrinkles had disappeared almost as completely as if air had been injected under the skin, and she looked no older than a woman of fifty. The red cells were almost doubled in number and the hemoglobin index was more than trebled. The most interesting fact, however, was that the hemorrhage, which had been going on for more than three months, stopped although no other treatment was followed. At the end of three weeks a little blood was noticed at stool and the patient was then anesthetized and thoroughly examined. Marked varicosity of the rectum was found, and some small ulcers. The latter were sutured over and at the end of six weeks the patient left the hospital with a red count of 4,000,000 and hemoglobin index of 70 per cent. Before the transfusion the patient had no appetite and could scarcely be made to take any nourishment. Directly after the transfusion she had a very vigorous appetite and gained rapidly in health and strength. Since then she has been in excellent health, and has had no recurrence of the hemorrhage from the bowels up to the present time, (Aug., 1907).

As far back as in 1882, Hayem (de la transfusion du sang considree comme moyen hemostatique. Gaz. hebd. de med. et de chir., 1884, XXI, 74-5), believed that the entire blood must have a more marked effect on the coagulation of the blood in the body than the other agents used to produce it. However, after experimenting with water, artificial serum containing sodium chloride, serum from similar and from dissimilar blood, natural sera which were not spontaneously coagulable, a solution of fibrin ferment, and defibrinated and whole blood, he concluded that blood serum was the most active coagulating medium, and whole blood the least, but that its power could only be demonstrated by injecting it into blood stagnant in a vascular segment. He further said this power could not be demonstrated in the living animal.

In the New York Medical Record (July 23, 1898), Fry reports the use of the injection of horse serum into three hemophiliac patients with very favorable results.

I cite the observations of Hayem and Fry, as they seem to have a more or less distinct bearing on the use of transfusion in conditions in which there is so-called pathologic hemorrhage and because I have clearly shown that transfusion may act most favorably in causing, for example, the stoppage of hemorrhage

from the intestinal tract. Just how this is brought about is not clear; whether by increasing the coagulability of the blood itself or by supplying the elements to the tissues which Morawitz has shown must be present in order that clotting may effectively occur. The first consideration seems to be that the desired result is obtained. Just how it is obtained we must gradually ascertain. In hemophilia, what could be more reasonable than to suppose that, as the dangers lie in hemorrhage or the extravasation of blood into the different tissues—the joints, large serous cavities, brain, etc.—in increasing the clotting power of the blood, relief may be afforded temporarily even if nothing more is accomplished. This would hardly be expected to repair the deficiencies in the vessel walls, which are reported by different observers, but it might at least be expected to help tide over the crisis.

The hemorrhage associated with jaundice had been a source of anxiety to the surgeon and danger to the patient. In fact, cases of this kind associated with spontaneous hemorrhage are usually rejected as surgical risks by most surgeons. The only case which I can present to you to-day as showing the effect of transfusion on this condition is as follows:

CASE VIII.—Female, age 42 years. Diagnosis; cancer of the gall bladder with obstruction of the bile ducts, chronic jaundice, subcutaneous, nasal, uterine and rectal hemorrhages.

Family History.—Maternal grandmother died of some stomach disorder, which may have been carcinoma. History otherwise negative.

Previous History.—The onset of the trouble was on August 1, 1906, when she had an attack of vomiting and became jaundiced; had gray colored stools, highly colored urine, and it seemed apparent that there was complete obstruction to the flow of bile. A little later there was severe epigastric pain and two small stones were passed. Toward the end of October she had a prolonged menstrual period and was curetted, and about this time blood was noted in the stool and continued to be present for two and one-half weeks.

When first seen a hard, slightly tender mass could be palpated over the gall bladder. There were petechial hemorrhages and more diffuse subcutaneous discolorations. The rectal bleeding also continued and bleeding from the nose had set in. The condition was such that she could not be sent to the hospital and it was decided to perform a transfusion at her residence.

Operation.—The patient's brother served as donor, and un-

der the usual technique the radial artery and the superficial vein near the elbow were connected. Blood was allowed to flow for 40 minutes, and the transfusion was then terminated. The face of the recipient gradually filled out and the lips and ears became pink. On account of the deep jaundice the effect upon the circulation of the skin could not be clearly seen. Her general condition was markedly improved and she felt much stronger. During the transfusion the nose bleeding disappeared. Immediately following it the bleeding from the uterus also disappeared.

The following morning she was in such good condition that it was decided to perform an operation under cocaine and morphine anesthetic to determine the cause of the jaundice. Carcinoma of the gall bladder with heavy metastatis about the liver and pylorus, was found. The condition was clearly inoperable and the wound was closed. No unusual amount of hemorrhage was noted.

Subsequent History.—The first week following the transfusion and operation the patient continued to improve greatly, looked far better and was more cheerful and hopeful. Her appetite increased, nausea and vomiting disappeared, and on the fourth day after the operation the stool for the first time in three weeks was clear of blood. There was no further nasal or uterine hemorrhage, and none from the wound, which healed without interruption. Twenty-eight days after the transfusion and operation there had been no recurrence of hemorrhage of any kind. In this case the pathological hemorrhage was pronounced and had an operation been performed before the transfusion the patient would not have been able to endure it on account of the collapse from the previous hemorrhage, and would in all probability have bled to death. The cessation of the hemorrhage from all observable points during the transfusion, and its failure to reappear in the time stated, would lead to the conclusion that it was due to the addition of fresh blood which overcame the pathological condition of the patient's own blood and therefore prevented the hemorrhage. The revival of the patient by the addition of the new blood was remarkable and as far as one could be able to judge, her expectancy of life was distinctly increased.

In conclusion, I may state that in the above-mentioned cases the direct transfusion of similar blood has afforded:

1. Complete relief for acute hemorrhages on two occasions in the same patient.

2. Complete relief in overcoming acute hemorrhages in a patient who afterwards succumbed to septicemia.

3. Complete stoppage of hemorrhage in four cases of chronic pathologic hemorrhage from the bowels.

4. Partial stoppage and relief in a similar case.

5. Complete stoppage of uterine, nasal, subcutaneous and rectal hemorrhages in a case of carcinoma of the gall bladder and surrounding parts, with sufficient stimulation of the patient to safely permit an exploratory laparotomy.

THE ANNUAL ADDRESS OF THE PRESIDENT OF THE STATE MEDICAL SOCIETY OF WISCONSIN.*

By L. H. PELTON, M. D.

WAUPACA, WIS.

As members of the State Medical Society of Wisconsin we are called to worship at the shrine of Esculapius for the sixty-first time, and as president it is incumbent on me to deliver the annual address.

Little did I think when we met here in Superior twelve years ago that it would be my pleasure to preside over this body at this time and place. I wish to thank you for the honor you have so kindly conferred on me, and in the same breath to apologize to you all, for I feel keenly my inefficiency.

For many years I have listened to the able papers, and valuable discussions presented at these annual meetings, and if not able to be present have looked eagerly for the Transactions, and I am sure that the names of the organizers and active workers will be green in the archives of the history of Wisconsin for all time.

The history of our country shows a marvelous growth—a steady growth and a substantial one—one that has, in the last twenty-five or thirty years especially, materially attracted scientists and artizans from the foreign nations, until the world resounds to their exclamations of praise. What greater compliment would a nation desire than the one paid us, after the conquest of Cuba, by a leading Parisian paper, which, in reviewing the sanitary work accomplished in Havana by the United States authorities remarked: "The contrast is a greater blow to the good name of Spain than the defeat at Santiago."

Medicine and surgery have shown from history that they have kept pace with, and abreast of, the other departments of science. It

*Delivered before the State Medical Society of Wisconsin, Superior, Aug. 21, 1907.

certainly is pardonable if we point to the history of our State and Society as being way up in the front ranks with the sister States.

History shows that medicine and surgery constitute a prominent factor in the development of our country; that prior to our independence our resources for medical knowledge were as limited as were the means whereby to obtain an education; that in those days our pioneers in medicine and surgery were obliged to go to the mother country in order to perfect themselves. Most of the men who in those days wished for thorough knowledge were possessed of a classical education, a broad foundation upon which to build, and this brought them shoulder to shoulder with the learned statesmen of those trying times incident to a new country.

Those men were equal to the emergency of parting from a maternal government, a government striving to restrain and retain by an iron rule. We find the names of physicians, advocates, signers and maintainers of the Declaration of Independence, and we refer to them with pride and gratification, knowing that in those trying times our profession was ready with personal sacrifices, as it has been ever since when the country was in peril.

As soon as independence was declared and won, and rapid strides of invention and improvement took place as the vast, uninhabited territory became settled, and villages and cities, reached through tractless forests, were builded, the pioneer physician and surgeon was in the vanguard of this tireless throng, assisting with cheerful advice, and attending to the sick and wounded, bringing with him his meager outfit, and often in times most needed obliged to substitute, or invent often means and measures of his own.

The settling and advancing improvements have been kept pace with by the sons of those early pioneers whose indomitable spirit and energy have been transmitted to the following generations, and some of the boldest, most useful lifesaving operations emanated from the brains of these pioneers—operations that have been taken up and followed by surgeons in the old country.

Following the advancement and building of our great cities there came the need of educational advantages, and through the energy of these pioneers developed our universities and colleges, until at the present time we have no need to go to the mother country for knowledge and clinical advantages; on the contrary, foreigners are looking to and coming to this. We have high schools, universities, and colleges second to none in any other country, our clinical advantages and didactic instruction are superior, our laboratories are as well

equipped, and as ably conducted. However, we must not—in our prosperity, exultation, and pride in our institutions—forget nor ignore the advantages and benefit derived from the mother country: we still have the task before us of learning the lessons taught by them: they are possessed of a certain finish, thoroughness, a classical atmosphere, if we may call it such, that we in our hurry and rush to keep pace with the age have not taken the time for, but must begin to acquire. On our visits there we soon imbibe the spirit, and in time will have the finish so necessary to our profession and more to be desired as we come to meet our foreign brothers upon our shore and in our own homes.

The last twenty-five years have shown more rapid strides than in the fifty preceding; the practice of medicine is far different now from what it was at the time we older members commenced our work. Think of the phases through which surgery has passed, the different methods and means brought out to assist in diagnosis, the different operations that are performed on all organs, in the different cavities of the body; no cavity is exempt from encroachment, none considered unsafe to operate upon when such is deemed necessary, not even the cranial, as has been shown and taught by our successful surgeons. Many life-saving operations were devised and first performed by men of our own country under the trying times mentioned, that have not come to us through pages of history, but have been brought out at some reminiscent conversation. It is a pleasure to meet those men. Their experiences taught them positive facts brought out by personal application and practice. The change in the practice of medicine has been brought to nearly an exact science in what is called preventive medicine, until the allotted time of man, instead of three score and ten, is approaching four score and ten, and at the rate it has been progressing the last ten years it will be but a short time when the physician will have little else to do than teach on a nominal salary.

We are told the first original medical work published in America was in the year 1788; the contrast then and now is almost incomprehensible. The first State Medical Society was that of New Jersey in the year 1766; now there is an organization in every state and territory in the Union, and under the present organization in nearly every county in the state.

The old organization was a good one, and one we will not soon forget. The meetings were well attended, and we have with us at the present time many who could always be counted upon to attend and assist with their able papers, in those meetings of twenty-five or thirty years ago; we all feel a quickening glow, a warmth of fraternalism, when we grasp the hands of those members.

From the comparative few, thirty years ago, to the present numbers, almost every cross-road having its representative, it became necessary and imperative to reorganize in order to bring us into a systematic working with the American Medical Association. It is no longer an experiment. Our medical societies are in fine working order, from American to State and County, and in order to get just and proper legislation to promote and maintain State Medicine, we must have active representation from County to State, and see to it that our State is represented at the National Legislative Council. This is of great importance in securing national legislation that will be of general interest to the medical profession, and through the medical profession of great benefit to society. If not already provided for, I would suggest that the actual expenses of these delegates be taken care of by the State Society.

It now rests with the members of each county and district society to maintain an interest, and add to the literary value of these societies. Under the present system the members throughout the state are brought nearer in touch, and as members of the one great profession that is striving to prolong, preserve, and save life, each and every physician should consider it his duty to attend these meetings as often as possible. A regular attendance at the county meetings will create a desire and ambition to become active members in the State Society.

There should be at least quarterly meetings of the County Societies. It is at these gatherings that experiences are brought out from papers, and the discussions that follow. There our mistakes and misapplications are shown up, and if we do not attend frequently we are inclined to get into the narrow, dangerous rut of conceit and selfishness.

The growth of medical language is phenomenal. One must needs keep up closely with his reading in order to keep pace with the work done by individuals; and our colleges, which are laying a broad foundation, teaching the student how to pursue research and read medicine prepare him to put in practice the principles taught. Each individual has his peculiar experiences, and different methods. Every case we find is an individual chapter in itself—hence the necessity of listening to various experiences.

Our text-books are guides, but we find, as we enter the maze of general practice, that we need many guides, our medical journals being among the most important. It is through these that new terms and methods are brought to our notice, proving more valuable

than our encyclopedias and dictionaries. Nowhere in the annals of history have we the record of so vast an amount of literature, and it is gratifying to know the standard of education is being raised, from our high schools, to our Colleges and Universities.

That the early education should be looked to more carefully is nowhere more in evidence than in the practice of medicine, for it is from these preliminary qualifications that we lay a broad basis for useful knowledge, and medical development, whereby we are enabled to engage in research and apply that in which we are instructed; and no one realizes this more than we who had our preparatory course in the early days. There is no profession in which constant reading, observation, and comparisons are so necessary, none that has a greater range of usefulness, none in which unity and fraternalism,—wherein lie the strength of all organizations—are more to be desired.

The fate of the physician is a hard one, to say nothing of the length of time spent in medical studies, all of which are laborious,—some decidedly repulsive, and of the necessary expenditure of money for attending lectures and hospitals, purchasing books and instruments, and in many cases for foreign travel. He must expect, after he is fairly a candidate for professional employment, to be made, in this capacity, an occasional butt for the stale jokes of the people in health, and their ready servitor at all hours when they are sick. The latter think no trouble too great, no service too menial for him to perform for them. He cannot, indeed, complain that the communications made to him by his patients, of their various infirmities, though it be a confidence often grudgingly given and extorted by pain, should still be regarded by him as a sacred deposit; but he is expected to be proof against every trial of his temper made by the impatient and querulous sick, and to compensate, by his assiduity and skill, for their neglect of themselves in failing to send for him at an earlier period. He must supply, by intuition, all the blanks left in the details of their feelings, and the exposure which originated the disease, whether the omissions were from forgetfulness or design; and as he himself is not supposed to have much sensibility, no pains are taken to spare him on that score. Every suggestion, however absurd and ill-timed, which false affection or neighborly impertinence can make, is freely obtruded on him. He is driven to a declaration of the result of the case under treatment, and often compelled to sacrifice either his reputation for sincerity, or for skillful prognosis. If he frankly predicts an unfavorable and fatal issue, he is supposed to be wanting in the resources of the art, or if he foretell recovery, he is supposed not to be fully aware of all the dangerous symptoms, and in either case hints

are thrown out that an additional advisor would be desirable. Should he, with a full knowledge of the acuteness and violence of the disease, adopt a clear and decided plan of treatment, he is accused by gossiping visitors, and spies from the camp of scandal, of acting rashly and in a spirit of theory. Were he, on the other hand, knowing that the disease will terminate favorably, without the necessity of much interference on his part, to give little medicine and resolve to wait, a calm but not unobservant spectator, it is whispered that he is at a loss what to do, and that he is ignorant of the remedies adapted to the case.

The loss of sleep and the interruptions at his meals, often caused by frivolous messages, alarms without cause, need merely be mentioned—they are things which, as a matter of course, a physician is expected to submit to with good grace, and to deem even as a favor conferred on him, by preventing him from gratifying his hunger, and renovating his weary frame and anxious mind.

After all, what is the equivalent for these services rendered, annoyances encountered, body worn down, and temper chafed? At times, and not infrequently, cold thanks, sometimes misrepresentation and abuse, and no money. On occasions indeed, he receives the language, and has evidently elicited the feeling of deep gratitude, but for the recurrence of which, even though the intervals be long, he could not sustain himself under the pressure of so many annoyances. The meanest, most abject and avaricious member of the profession could not remain in it without some such reward—mere money could not pay him.

The richest man in the land, however prodigal in his payment of fees, is still the debtor to his physician who has saved his life, or rescued him from deformity and lingering disease. What then shall be said to those who swindle the physician out of his hard earnings by refusing to pay him, while all other claims are attended to, who think him paid by the honor of having been their ready servant, their slave during a protracted and dangerous disease? The remedy, I sincerely believe, rests with us as a profession. Therefore, to smooth the rough ways and byways, to bring about a unity, and sincere fraternalism, I can recommend nothing better than to relax more frequently from our duties, mingle with one another at our medical gatherings, and when we adjourn, adjourn with a genuine "Fraternally Yours."

ORIGINAL ARTICLES.

RECENT SANITARY LEGISLATION IN WISCONSIN.

BY C. A. HARPER, M. D.,

SECRETARY OF THE STATE BOARD OF HEALTH.

MADISON, WIS.

A cursory review of sanitary legislation enacted at the last session of the Wisconsin Legislature is sufficient proof that measures calculated to protect and improve the public health have received careful consideration. From a sanitary and statistical point, one of the most important measures passed by the 1907 Legislature establishes, in connection with the State Board of Health, a Bureau of Vital Statistics providing for registration of births, deaths, marriages, accidents and divorces.

Each Legislature for the past ten years has endeavored to perfect old laws relating to the collection of the vital statistics, and in several instances new sections have been added to the statutes. This fact alone emphasized the defects and pointed to the necessity of a complete revision.

It has been the reproach of this country that almost alone among the civilized nations of the world we possessed no reliable vital statistics or even mortality statistics for the country as a whole. Such data are organized in European countries as indispensible to sanitary progress, and in recent years satisfactory systems of registration have been established in such countries as Southern Africa and Central America. The indifference and neglect which in the past have characterized any attempt to secure a uniform system for the United States, has resulted from crude attempts to enact such legislation in the several states. The several states have acted without the supervision of any central registration authority and without observing the essential principles necessary to the satisfactory execution of any registration law.

These records in every civilized nation save the United States are made with the greatest care. Family histories can be traced back for many years and people are able to substantiate claims which might make rich or beggar worthy persons. The people themselves have so long been accustomed to this work on the part of the government that they are surprised when they are not able to secure similar records in this country.

An eminent authority on this subject has stated that the registration by a state of its vital statistics is one of the most important matters that can interest our commonwealth.

The Austrian Minister of Commerce states that "The statistics relating to births, marriages, and deaths are no longer used as a mere technical science for the gratification of the curiosity of the learned, since they subserve the practical ends of the political society and lend service to the administration of existing institutions and laws and in weighing measures not yet carried out."

The Congress of the United States by joint resolution passed February 11, 1903, asks that all states enact approved and satisfactory laws for the collection of vital statistics to the end that the United States may obtain a complete and uniform system of registration.

Under the supervision of the Federal Census Bureau all the essential features of a perfect and uniform system of registration have been published and distributed throughout the country. These provisions, in the main, have been incorporated in the vital statistics law which was enacted by the last Legislature, and will, if properly enforced, entitle Wisconsin to admission to the registration area. The statistics can then be compared with similar data collected in other states which is very essential to a scientific understanding of certain social tendencies.

Chapter 469, 1907, is a complete revision of all our registration laws. Births must be reported by the attending physician or midwife to the local registrar of the district where the birth occurred within five days after the date of birth. Under the provisions, inability to obtain for record the christian or given name of a child will not be considered sufficient excuse for failure to file the certificate within the allotted time. In case the child is not named when the physician or midwife reports the birth to the local registrar, it then becomes the duty of the local registrar, the town clerk in towns, the village clerk in villages, and the health officer in cities to deliver to the parents of the child a special blank for the supplemental report of the given name. This provision will relieve the medical men of a responsibility which, in many cases, they cannot assume, and will insure accurate and complete reports of all births occurring in the state.

Formerly the attending physician was charged with the duty of filling out and filing with the proper official, a satisfactory death certificate before a burial permit could be obtained. As a result of the provision, we have been unable to obtain reports of more than ninety

per cent of the total deaths occurring in the state, and some undertakers either openly violated the law requiring burial permits before interment, or else voluntarily assumed the responsibility of obtaining for the record the facts required to make the certificate of death complete. It was practically impossible for the physician to fill out the certificate if he was present at the time of death, and if not present the difficulties were increased since it necessitated the making of a special trip to the home of the deceased in order to learn many of the particulars.

Under the new registration law the undertaker is required to obtain the personal and statistical particulars from the person best qualified to supply them. He must then present the certificate to the attending physician or other person authorized by law to fill out the medical certificate of the cause of death. The undertaker must then sign the certificate and present it to the local registrar, his deputy or a sub-registrar for the district where the death occurred, when a burial permit will be issued. This provision, as will readily be seen, places the responsibility of filing the death certificate upon parties who, from the very nature of their business, are best qualified to discharge such duties. Similar provisions have been enacted in seventeen of our most progressive states, and wherever tried excellent results have been obtained.

The registration of marriages and divorces is very similar to that enacted in other states.

The law requiring physicians to report all accidental injuries which incapacitate the person for two weeks or more is unique and has received much favorable comment. Without the statistics showing the relative importance of purely industrial injuries as compared with accidents resulting from other causes, the accumulative evidence relating to certain seemingly unimportant causes of accident is not available and their real significance is not revealed. Many factory owners and other persons employing labor, as well as physicians employed to treat injured employees, sometimes appear to discourage the making of these reports, fearing, it seems, that the information collected will result in some drastic legislation. This is certainly a wrong interpretation of the fundamental principles and intent of the law. A knowledge of the causes of accidental injuries will save employees and protect employers by pointing out the necessity for safety devices on dangerous machines. This will tend to eliminate the expensive litigation growing out of personal injury cases.

Many far reaching results will be achieved through the proper

enforcement of the vital statistics law which cannot be fully estimated at this time. Reliable records of birth, deaths, and marriages are coming to be of vital importance in the matter of inheriting property, in relations of guardians and wards, in the administration of estates, in determining the legal age for marriage, as insurance proof when the exact age of the insured cannot be determined, in voting, in enforcing the inheritance tax law, and in administering laws relating to education and child labor.

The initial cost of obtaining accurate records from each township, village, and city will be reduced nearly one-half. Formerly the fee provided for physicians, midwives, ministers, local registrars, registers of deeds, etc., made the cost of each certificate, for fees alone, 77 cents. It has long been recognized that the cost of these certificates was exorbitant, especially when we consider that a certain per cent of the records was so grossly inaccurate and incomplete as to have no practical value.

Under the new provisions the fee for local registrars, physicians, midwives, ministers, etc., will remain the same, and each certificate of birth, death, marriage, and accident will cost the several counties only 40 cents. This will result in a saving each two years, in fees alone, of over $75,000, and the returns can be made complete. Stated differently, the old inaccurate system of registration cost from $75,000 to $80,000 every two years to duplicate the records in each of the counties. Such a duplication of births, deaths, and marriages was wholly unnecessary. Certified copies of all certificates are preserved in each township, incorporated village and city. The originals are filed in the office of the State Board of Health—Bureau of Vital Statistics—and indexed by the card index system.

Again, the county was the unit for registration purposes and unhealthful localities or abnormal conditions of any character within the county could not be determined. Local health authorities could not obtain timely information regarding the prevalence of certain preventable diseases, and the work of life saving, however earnestly it was undertaken, lacked effectiveness.

Now the data necessary for making a scientific study of the causes producing certain undesirable social conditions in this state will, for the first time, be made available, and the good which will result from an intelligent understanding of social forces at work in Wisconsin will fully warrant the Legislature in creating a thoroughly modern system of vital statistics in connection with the State Board of Health.

The smallpox law provides that the local board of health in cities, incorporated villages or towns shall, when smallpox is present in any school district or part thereof which is included in such city, incorporated village, or town, prohibit the attendance at school for a period of twenty-five days after the appearance of smallpox of any and all pupils and teachers who have not been successfully vaccinated, or who fail to show a certificate of recent vaccination. Should new cases of smallpox continue to develop after the expiration of the twenty-five days, the local board of health shall, upon the advice and consent of the State Board of Health, renew such order for another period of twenty-five days or as many days thereof as the State Board of Health may deem necessary in order to control the epidemic.

If the parents or guardian of any child or children are unable to pay for such vaccination, the expense thereof shall, upon the recommendation of the local board of health, be paid for by the city, village, or town in which the expense is necessarily incurred. The law also states that the local board of health may provide for the free vaccination of all children in any school district during an epidemic of smallpox, whenever, in its judgment, such action is required.

In the course of its enactment this measure was bitterly opposed by certain "sects and isms" of this state and other individuals who place personal liberty on a higher plane than life or strict adherence to measures affecting the general public. The bill was opposed on the ground that it was unconstitutional and that vaccination does not prevent the spread of smallpox. In answer to the first objection, the United States Superme Court, in the cases of Jacobson vs. Massachusetts, established the constitutionality of such a law and stated in decision: "Liberty does not impart an absolute right in each person to be at all times and in all circumstances wholly freed from restraint, nor is it an element in such liberty that one person, or a minority of persons residing in any community and enjoying the benefits of its local government, should have power to dominate the majority when supported in their action by the authority of the state."

To answer the second point suffice to say that wherever compulsory vaccination is strictly enforced, smallpox is practically unknown.

Two objects will be accomplished by the strict enforcement of this law, namely: the educative value of demonstrating that vaccination renders people immune to smallpox; and secondly, the schools, as far as smallpox is concerned, will be kept open during the entire school year.

Tuberculosis received special attention and the law provides for a report to the local health authorities of all persons who are suffering from tuberculosis. In case of the vacation of any premises or apartments the commissioner of health or health officer shall immediately visit said premises and order that such premises and all infected articles therein be properly and suitably disinfected. Whenever the law requiring the disinfection of premises or apartments is not complied with within thirty-six hours after the directions or orders had been given, the commissioner of health or health officer is required to place a placard on the door of the affected apartments or premises to read: "Tuberculosis a communicable disease. These apartment have been occupied by a consumptive and may be infected. They must not be occupied until the order of the health commissioner or health officer directing their renovation and disinfection has been complied with."

The law further provides that any person afflicted with tuberculosis of the lungs or larnyx or any other disease whose virus or infected agent is obtained in the sputum or other secretions, shall not deposit his sputum, saliva, or other infectious secretions in such a place as to cause offense or danger of contracting the disease to any person or persons. All individuals afflicted with tuberculosis of the lungs or larnyx are required, under the provisions of this law, to provide themselves with a sputum flask or receptacle in which to deposit the sputum, saliva, or other infectious secretion while traveling in any public conveyance, or attending any public place. This means that there shall be no promiscuous expectoration in public buildings, halls, street cars, or railroad trains: a most important factor in the crusade against the Great White Plague.

Again the legislature provides that: "In case the town board, village board, or common council fails or neglects to appoint a board of health as provided by law, the State Board of Health may appoint persons to serve on such board until a board of health has been legally appointed as herein provided, and the necessary expense so incurred shall be charged to and paid out of the treasury of such town, incorporated village, or city."

To provide for the proper control of diphtheria the local board of health *must* furnish antitoxin free to all indigent persons suffering from the disease in such a manner as the State Board of Health may direct. In order that local boards of health may be able to secure reliable antitoxin on short notice, the State Board of Health will keep a fresh stock on hand and a supply will be sent at once to any board of health requesting it.

No particular brand of antitoxin will be supplied exclusively, yet the State Board will send nothing but the most approved brands. In the course of a few weeks, upon the request of any local board of health or its health officer, the State Board of Health will send at once by mail or express, prepaid, the number of packages ordered, and the doses indicated. A statement will be sent to the person who orders the antitoxin and a duplicate statement will also be sent to the producer who will collect the amount due for the antitoxin from the local board of health. Under this system, antitoxin cannot be furnished to physicians except upon the order of the local board of health.

The wisdom of supplying antitoxin free to indigent persons cannot be questioned. To lessen the number of deaths from this disease and also prevent those who are exposed from having the disease, is a public health measure for which the public can afford to pay.

Additional measures provide a penalty for any person who shall knowingly and willfully take, aid in taking, advise, or cause to be taken, a child or other person who is afflicted with or is suspected of being afflicted with a contagious, infectious, or pestilential disease into any public place or public conveyance, or in any way willfully subject others to the danger of contracting such disease. Under the provisions of the original law, persons afflicted with a dangerous contagious disease could be punished for willfully subjecting others to the dangers of contracting the disease, but physicians or other persons who advised or aided persons so afflicted to change their place of residence could not be punished unless the person afflicted was a child or other irresponsible person. Such practices are not indulged in to a marked degree; unfortunately, however, instances can be cited where the attending physician advised the employee to discontinue his or her services and leave the premises in order that the employer might avoid quarantine. Such actions created new foci of disease and occasionally a severe epidemic has been started.

The transportation laws are remodeled with a view to conform with the uniform systems being established throughout the country and without the necessity of legislative enactment each year.

It will be seen from this partial review of legislation affecting the general welfare of the people that the legislature has been liberal and progressive. It has enabled the State Board of Health to have the most up-to-date laws on vital statistics and sanitary measures. In view of this fact the medical profession of the state, as well as

all other officials included in the execution of these measures, should put forth new vigor to comply with the provisions to the fullest extent. The State Board desires the hearty co-operation of all these officials and stands ready to render any assistance within its power to make its work a success. Wisconsin is certainly progressive in the political and educational world, and we can be equally progressive in the sanitary and hygienic principles affecting the general public if the hearty co-operation of all is manifested.

SOME MODERN THEORIES OF DIGESTION*.

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The purpose of my paper this morning is to present for your consideration some of the newer conceptions of digestion, and especially those based upon the more recent findings of such investigators as Cannon, Starling, Cohnheim, Volhard, and others less distinguished. In summarizing these newer ideas it will also be necessary for me to review and define the older conceptions of digestion, by which I mean the views that were held some ten years ago by physiologists, and which have been maintained to a much more recent date by their advocates. The advance of any great branch of science is a necessarily slow process, hedged in and safeguarded from the rash and ill founded theories of enthusiasts, by the slow conservatism of the majority. It takes many years for the facts presented in the literature to be thrashed out and accepted by the great mass of men interested. Much of the literature upon digestion is still in the controversial stage, and many of the facts and theories advanced need further confirmation, but even after eliminating all such material from this discussion it is possible to indicate some very radical changes in the trend of thought today from what was commonly held a decade ago.

In the first place then, let me present the picture of the alimentary tract in action, about as it was conceived by the older physiologists, and as it has been taught even up to the present day. Food masses mixed with saliva were met in the stomach by the acid gastric juice, called forth by psychic, chemical, and mechanical stimuli. Peristalsis of the fundic as well as the pyloric portion churned the food

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mass and mixed it with the gastric secretion. The ptyalin of the saliva, sensitive to very minute amounts of acid was thought to be rapidly destroyed and any further digestion of the starchy portions of the food by that enzyme prevented. The chief function of the saliva was thus a mechanical one in preparing the food for rapid admixture with the peptic secretion. Proteids were converted into soluble acid-albuminates, proteoses and peptone. Fats were liberated from their connective tissue cells and emulsified, and as the stomach contents became more and more uniformly fluid, portions were from time to time forced on into the duodenum. The pyloric sphincter was thought to respond chiefly to mechanical stimulation—the fluidity of the gastric content largely determining the opening of the valve. Thus the more solid portions of the food were held back while the fluids only were allowed to pass. Besides the pepsin and rennin there were no other digestive enzymes known in the gastric juice.

In the duodenum, the acid of the chyme was thought to stimulate a corresponding pancreatic secretion and flow of bile. The character of the food was also thought to exert a chemical influence upon the character of the pancreatic secretion so that the amounts and kinds of enzymes elaborated were adapted to the digestion of the particular meal or diet. Thus a diet rich in proteids seemed to call out a secretion rich in trypsin for their digestion, a carbohydrate diet was provided with an abundance of the starch digesting ferment amylopsin. In fact the theory of adaptation announced by Pawlow and his school was being pushed to its logical conclusion by Weinland and Bainbridge who claimed to produce so specific an enzyme as lactase in the pancreatic juice of dogs fed for a few weeks on a diet containing milk sugar. The normal dog exhibits no such enzyme in the pancreatic juice. The enzymes normally present in pancreatic juice were trypsin and trypsinogen, amylopsin, and steapsin or lipase—the fat splitting ferment.

Of the bile little could be said beyond its emulsifying ability; it was believed to facilitate fat absorption by this property. The whole subject of fat digestion and absorption was unsatisfactory, indefinite, and under especial controversy, some physiologists contending that the minute particles of emulsified fat worked their way through the intestinal mucosa into the lacteals, others believing that the fats were more or less split into fatty acids and glycerine in the intestine to be absorbed and resynthesized before reaching the lumena of the lacteals into neutral fats.

The soluble proteids of the chyme were thought to be broken

down in the intestine to the proteose and peptone stage and as such absorbed undergoing possibly a resynthesis into circulating proteids, or perhaps taken up by the leucocytes and by their agency converted into circulating and morphotic proteids. For the assumption that in normal digestion, proteids were not hydrolized into the simple, non-proteid cleavage products—amino-acids and hexone bases—there seemed abundant reason. In the first place all experimental work on tryptic digestion in vitro even under the most favorable conditions showed that that process was a long one, requiring days to convert more than a small percent of the proteid into these simple cleavage products. A complete digestion down to a proteid-free solution might require weeks or even months. Obviously it was absurd to suppose that a process requiring so long a time in the laboratory under the most favorable circumstances, could take place in the body in a few hours—making all due allowance for the retarding effects of accumulating digestive products present in vitro but removed by absorption from the intestine. In the second place peptones were known to pass quite readily through semipermeable membranes and proteoses only slightly less so. Again the most reasonable explanation seemed to be that the peptones and albumoses were absorbed as such from the intestine; that only in cases of abnormally large amounts of proteid in the intestine were the simpler cleavage products formed. Indeed it was believed that in such cases the leucin and tyrosin were so much dead loss in nutrition, and the few attempts made to support life on these cleavage products tended rather to confirm this view than otherwise. We are accustomed furthermore to find considerable amounts of peptone in the intestine at the height of digestion, while the cleavage products are much less common in significant amounts.

To the succus entericus and true intestinal digestion was accorded a very minor role. Its function in digestion seemed to be to complete the hydrolysis of any carbohydrate not already reduced to the monosaccharide condition by the pancreatic and salivary enzymes. It was known to contain invertin, maltase, and in suckling animals lactase. No proteolytic enzymes were known in the succus entericus.

Finally the feces were considered to be largely the residues of food undigested or indigestible. Little account was taken of the gut as a true excretory organ such as we know it to be today.

Such then was the general conception of the processes of digestion at the beginning of the decade. Our views today depart from this conception in a number of important respects, and it seems only just to associate within these departures the names of a few of the men

chiefly instrumental in effecting them. Cannon for example has shown that there is far less general movement of the contents of the stomach after a full meal than was supposed. The great bulk of the food remains quiescent in the tonic fundus of the stomach, gradually becoming impregnated from without inwards by the gastric juice, but only towards the pyloric end subjected to any very considerable mechanical mixing and churning. There the peristaltic movements are vigorous, food and secretion become well mixed, acidity and fluidity increasing together until a degree of acidity is present sufficient to inhibit the contraction of the sphincter muscles. The pylorus opens and the less acid portions of the food from the cardiac region replace the chyme spurted on into the duodenum. The sphincter again contracts until the acidity reaches the degree sufficient for the reflex. The acidity of the pyloric contents is certainly one of the determining factors in the opening and closing of the sphincter. In the fundus of the stomach where the reaction remains neutral for a considerable period, the action of the saliva upon the amylaceous foods can continue unchecked. It must be of no inconsiderable amount before the development of a reaction sufficiently acid to arrest and destroy it. Another enzyme which acts best before the reaction becomes very strongly acid is the gastric lipase discovered by Volhard while studying the absorption of cane sugar from an egg-yolk emulsion in the stomach. Volhard's announcement of the new gastric enzyme was received with much skepticism by physiologists, who saw in the fact that the enzyme was richest in the pyloric end of the stomach evidence that it was simply a little pancreatic steapsin present in the antrum from regurgitated intestinal contents. Others considered the fat splitting observed by Volhard to be due to hydrochloric acid alone; to others bacteria were the real agents. These various objections have one by one been met, and today there seems every reason to believe that the normal gastric juice of man, the dog, and the pig, contains the enzyme. Perhaps the most convincing of all the pieces of work done in this field is that of Laquer, who collected the secretion from a dog carrying a Pawlow "small stomach"— a fold of the stomach sewn off from the remainder and opening without by fistula. When secretion is excited in the main stomach by the presence or sight of food, it flows also in the Pawlow stomach uncontaminated by saliva or foreign material. In a series of observations on the secretion so collected Laquer found the lipase to be uniformly present, and active enough to convert a very large fraction of the emulsified fat into fatty acid and glycerine in the time of the experiment. In general the enzyme is rather sensitive to

the kind of emulsion presented to it as well as to the reaction of its medium. It acts rapidly on such perfect emulsions as milk or egg-yolk, slowly on commercial and laboratory emulsions, such as cod-liver oil preparations and olive oil. It was at first assumed that this was evidence of a specific preference for certain fats, but Laquer disproved this theory. A laboratory emulsion of butter or egg fat is as slowly acted upon as the laboratory emulsions of other oils. The more perfect the emulsion the more rapid is the hydrolysis of the fats. With this recognition of another powerful fat digesting enzyme in the digestive machinery beside the one found in pancreatic juice, an increased significance must be given this process in the preparation of food for assimilation. This point however will be touched upon later.

In regard to the pancreas the chief differences between our view today and that of a decade ago center around the discoveries of enterokinase by Schepowalnikow and secretin by Starling. We know that the pancreatic juice fresh from the duct of Wirsung is devoid of proteolytic activity. In other words pure pancreatic juice contains no trypsin, nor will contact with acids activate such a juice. But even the slightest contamination with intestinal juice or contact with intestinal mucosa, serves to rapidly activate the mother substance trypsinogen, leading to the immediate development of proteolytic activity. In the enterokinase then of the duodenum we have an enzyme whose function it is to activate a second enzyme—with no true digestive functions of its own. It has been contended that enterokinase was not an enzyme proper at all, but in the nature of an "amboceptor"—to use the Ehrlich nomenclature,—that it combines with trypsinogen to form trypsin. Such a combination would of course necessitate a definite mass relation between the trypsin formed and the enterokinase used to form it, and this mass relation does not seem to exist. A very minute amount of enterokinase will activate a relatively large amount of trypsinogen, nor will the kinase be destroyed in the process; given more time it will continue to activate more and more trypsinogen. In this respect it is evidently closely allied to the other catalytic agents, rather than the Ehrlich "amboceptors."

In the mucosa of the duodenum Bayliss and Starling found a substance whose peculiar function it seemed to be to stimulate pancreatic secretion. The injection of an acid extract of the mucosa, boiled and neutralized, will cause an immediate flow of pancreatic juice. This substance has been called secretin; it is thermostabile, non-proteid or enzymatic in its nature, and is formed by the action of hydrochloric acid upon a precursor, prosecretin, present in the mu-

cosa. The chemical identity and formula of the body remain still to be determined, but its great efficiency in producing a flow of pancreatic juice can only be appreciated by demonstration. In collecting pancreatic juice from the duct of a dog the normal rate of flow is very slow, a few drops a minute at best. Following the intravenous injection of secretin the juice not infrequently runs in a stream from the mouth of the canula. In a few moments the effect subsides with the elimination of the exciting agent from circulation, and the flow drops to the normal rate again. The phenomenon can be repeated many times before the gland becomes exhausted. Something akin to this probably occurs in digestion. The acid of the chyme produces secretin in the mucosa; this is absorbed and carried to the pancreas; an immediate flow of alkaline juice is called forth till the intestinal content is neutral, when no more secretin is produced or absorbed. The gland is thus enabled automatically to secrete the proper amount of juice for digestion. As long as the chyme is acid secretion continues; when the solution is neutral or alkaline secretory activity is for the time being at an end. The efficiency of pancreatic secretion, and hence digestion, is seen therefore to depend somewhat upon the character of the chyme. Under normal conditions the hydrochloric acid of the chyme tends to produce a normal flow of pancreatic juice. Where hydrochloric acid insufficiency is marked, as in certain types of dyspepsia, a lessening of the pancreatic juice is to be expected. The interdependence of the two digestive steps is evident.

Before leaving the subject of pancreatic juice it may be well to call attention to some recent contributions to our knowledge of pancreatic adaptation to food supply. As was mentioned before, Weinland carried out the doctrine of adaptation to its logical limits when he found that feeding a diet rich in milk sugar produced an enzyme adapted to the digestion of this carbohydrate. Bainbridge confirmed Weinland fully, and found in addition that in these cases a lactase excitor was produced in the duodenal mucosa. That is, after feeding a dog on milk sugar for some time, a specific secretin is found in the mucosa whose function it is to be absorbed and to stimulate in the pancreas the secretion of the enzyme lactase. To prove the lactase excitor, Bainbridge injected into a normally fed dog, and therefore a dog wholly lacking lactase in the pancreatic juice, the mucosa extracts of a dog kept on a diet rich in milk sugar. This injected extract produced a flow of pancreatic juice—at least Bainbridge thought it did—which contained the enzyme lactase. These investigations seemed to have done much to establish one of the most attractive theories ever ad-

vanced by physiologists, paralleling the Ehrlich hypothesis of immunity. The various steps in the reasoning were so logical and the experimental data so convincing that the notion of the adaptability of the pancreas to all sorts of diets became something of a favorite. Unfortunately however the experimental methods of Weinland and Bainbridge were such as to make large errors a certainty, while their conclusions were based upon very small differences. Bierry in attempting to repeat the findings was unable to detect anything in his results to warrant a lactase formation. Nor was he able to reproduce the startling results of Bainbridge. Naturally the adaptationists were left somewhat undecided as to whether the pancreas could or could not produce lactase, when Plimmer put the quietus on that particular question. In an excellently planned and executed series of experiments, in which strictly quantitative methods were substituted for uncertain qualitative ones, Plimmer demonstrated that after months of milk sugar feeding the pancreas remained quite as free from a lactase as it was before. We shall have to abandon at least this much of the adaptation theory. As a side light along this same line it might be suggested that the herbivorous animals have eaten cellulose for untold generations, but so far as I am aware no one has found a pancreatic juice adapted to the ready utilization of this very important carbohydrate, despite the obvious advantages an animal so provided would have over his fellows in the struggle for existence.

The finding of the specific enzyme erepsin in the mucosa of the small intestine, by Cohnheim in 1901, has modified very largely our views concerning intestinal digestion and protein absorption as well. We can no longer dismiss the succus entericus in the cavalier fashion accorded it a few years ago. It was while repeating the work of Heidenhain and Neumeister upon the question of proteid absorption, and especially peptone absorption, from the small intestine, that Cohnheim stumbled upon an enzyme in the mucosa which was specific for peptones and albumoses. These it was found to break down with great speed and vigor to the crystalline cleavage products without affecting the native proteids, excepting casein, in the slightest; thus establishing that it was not trypsin as was at first supposed. In fact in the lower small intestine where Cohnheim found the erepsin most abundantly, trypsin is seldom present; its proteolytic activity apparently causing its self destruction.

By the finding of this enzyme erepsin we are now in a position to account for some of the anomalies of proteid digestion and absorption. For example a mixture of trypsin and erepsin will reduce a soluble

proteid to its cleavage products in a very short time—approximating the speed of digestion in the body much more closely than is possible with trypsin alone. For example, the laboratory class this year prepared a strong peptone solution, giving a brilliant biuret reaction, which was converted overnight by the erepsin of a mucosa extract into a peptone-free solution. Contrast this with the weeks required to accomplish this same result with trypsin and some notion may be gained of the possibilities of this enzyme in the body where the products of proteid cleavage can be removed rapidly by absorption. Indeed it is more difficult now to conceive of peptone getting through the epithelial cells of the intestine unchanged, than it used to be to imagine it broken down into its cleavage products, in so short a time. We are therefore no longer compelled to believe, on a time basis, that proteids are absorded as peptones; we are in a position to admit the possibility of their reduction to the simple molecules of their cleavage products.

This brings us to one of the most interesting of our present day problems: the synthesis of proteids in the animal body. We are accustomed to associate with animal functions, chemistry of an analytical type rather than a synthetic; tissues are broken down in katabolism to the final simple products of analysis, carbon dioxide, water, urea, etc. From our biological view of life as a whole we are accustomed to under-emphasize perhaps, the synthetic processes that go on in the animal body. Especially have we been sceptical of the ability of the body to synthesize so complex a substance as proteid—a substance that continues to baffle the most skillful of chemists in its reproduction. I wish therefore to present this phase of the modern concept of digestion somewhat in detail, with some of the evidence concerning it. Consider in the first place, if you will, the great variety of native proteids that make up the diet of the average man—the myosin of the meat, the ovalbumins and globulins of the egg, the casein of milk, and the long list of albumins, globulins, and compound proteids of a vegetable origin. Formerly we could lump all these together under the name Proteid, with a perfectly clear conscience; they respond alike to certain general reactions. Today, from the rapidly increasing number of careful analyses, we know how extremely diverse these proteids are. Some are crystalline, others are not; some coagulate by heat, others do not; most are insoluble in alcohol, while a few are soluble; elementary analyses show considerable variations in the relative proportions of the carbon, nitrogen, etc., of which they are made up. Finally hydrolysis discloses the fact that they are very different

in their molecular components so that while in a loose way they are all members of the same great group, responding to certain tests, they actually are widely separated from each other in real chemical composition. For example the glutin of wheat flour is very rich in glutaminic acid which many proteids practically lack; gelatin is rich in glycocoll but contains no tyrosin, tryptophan, or cystin molecules; zein of the corn containes no tryptophan, etc., etc. We may almost assert that no two proteids from different sources are alike. Obviously all this heterogenous mass of proteids in the food of a man, must be eventually converted into blood and tissue proteids that are typical of the human race, perhaps even typical of the individual. A change of diet from little bread to a great deal does not appreciably increase the resemblance of the blood or tissue proteids to glutin; they remain uniform, definite, unaltered in composition through all the wide changes of menu adopted by the individual. Not only are the native proteids themselves different from each other, but these differences are to be found in their primary cleavage products—the peptones and albumoses. It therefore requires a great effort of the imagination to conceive of the organism building up its own distinctive albumins and globulins from these already large and diverse molecules of peptones and albumoses. In view of our present knowledge of the composition of proteids such a process seems almost inconceivable.

On the other hand if we admit a breaking down to the fundamental units of structure during the process of digestion, it is quite apparent how a dog can build up typical dog-proteids, a fowl its characteristic tissues, and a man his, from the identical diet. We can understand too why dog or human serum remains uniform in composition no matter what the diet. We have simply to assume the two propositions of complete cleavage and resynthesis to put the whole question of proteid absorption on a reasonable basis. Let us see what the evidence for these two propositions is. With the erepsin we have disposed of the question of cleavage; as for resynthesis it must be admitted that much of the evidence is circumstantial. We know in the first place, as Heidenhain, Neumeister, and others demonstrated, that if a loop of the living intestine be isolated and filled with a peptone solution, the latter rapidly disappears from the lumen of the gut. At the same time neither the blood nor the lymph contain peptone or cleavage products. There seems to be but one explanation—that resynthesis has occurred. And yet so far as I know, no one has succeeded in the crucial test of securing and isolating the synthetic product, or demonstrating an increase in the circulating proteids.

Cohnheim tried to do this, bathing the loop of the intestine in Ringer's solution, but he did not succeed in demonstrating the synthetic proteid. The manipulative and technical difficulties of this field are enormous and so far have prevented the proving or disproving of the synthesis idea.

From another standpoint, however, we have absolute evidence of proteid synthesis. I refer especially to the work of Abderhalden and his pupils in conducting feeding experiments from which proteid was eliminated completely and in its place the same amount of nitrogen in the form of cleavage products substituted. For example Abderhalden and Rona prepared by prolonged tryptic digestion of casein, a biuret free mass of the amidoacids and hexone bases. By appropriate admixture of fat and carbohydrate a ration was prepared that was found to answer perfectly the test of any diet. It was sufficient to keep the subjects in nitrogenous equilibrium, without loss of weight or disturbance of health, and this for a considerable period of time. Abderhalden's dogs were kept from a week to two weeks upon a diet absolutely proteid free; all the nitrogen of the diet was furnished in the form of leucin and tyrosin and the other cleavage products. Obviously the periods were too long to conclude that the cleavage products exercised merely a tissue-sparing function—that the animal was able to live without any tissue katabolism by means of these nitrogenous compounds. In the course of a few days the inevitable katabolism would have manifested itself in loss of weight. But instead of losing weight the animals in some instances actually gained; a portion of the nitrogen was retained presumably in the form of permanent tissue increase. Where there was no gain in weight there was still the ability to build up tissue proteids as fast as normal katabolism broke them down. Here we have a definite proof of proteid synthesis. Abderhalden was able to reproduce the experiment using acid cleavage products, instead of the tryptic digestion compounds. While the two are essentially the same, it is a much more difficult task to hydrolize a great mass of casein by boiling with strong acid and then separating the cleavage products in a form still palatable to an animal. That he was able to do this is abundant testimony to the skill and care of Abderhalden. The doubtful results obtained by experimenters before Abderhalden must I think be attributed to faulty technique in the preparation of cleavage products in a form still palatable to the subject. Abderhalden was finally able to keep himself in nitrogenous equilibrium for a few days on a diet similar to that fed to his dogs—that is a diet free from proteid.

Besides the work of Abderhalden, two other recent papers deserve mention since they bear indirectly upon another phase of this same question. If the organism is able to resynthesize body proteids out of the cleavage products of some normal proteid, like casein, what effect will the cleavage products of an abnormal proteid have? The body proteids are normal, in that they are composed of the full list of amido-acids and hexone bases, etc. A diet containing only a portion of these cleavage products should not, theoretically, be sufficient to maintain equilibrium or weight or even life. Similarly a proteid itself which, like gelatin, lacks certain of these important groups, should not be able indefinitely to sustain an animal in equilibrium, without loss of weight. This problem was undertaken by Kauffmann, who attempted to determine incidentally the food value of gelatin compared with a true proteid. Gelatin it will be recalled lacks the tyrosin, tryptophan, and cystin groupings in its make up. Kauffmann found that one fifth of the proteid of the diet could be replaced by gelatin without loss of equilibrium. Any increase of the gelatin above this fraction, at the expense of proteid, resulted in immediate loss of balance and weight. The animals used up their tissue proteids faster than they could be resynthesized on such diet. If tyrosin alone were added to the diet, he found that one half of the total food nitrogen could be replaced by gelatin. If tyrosin, tryptophan, and cystin were all added —still keeping the total nitrogen the same as before—gelatin could be made to replace proteid entirely in the food. This experiment is interesting from our point of view because it shows the inability of the mechanism to build up typical tissue proteids out of a proteid which lacks some of the essential units of structure. If these units be supplied in the form of proteid as in the first step of Kauffmann's experiment, or in the form of simple additions of the lacking groups, gelatin changes from a partial food stuff to a complete one. To the organism, gelatin + tyrosin + tryptophan + cystin is as good as a native proteid; on gelatin alone it would starve to death in a short time—in fact about the same length of time required for it to starve to death on a diet of carbohydrate and fat alone. Certainly it would be a difficult undertaking to explain such a result as this on any basis but that of fundamental cleavage and resynthesis.

The other experiment along this line was in the nature of a preliminary trial. Wilcock and Hopkins investigated the effect of a diet rich in another one sided proteid—Zein, the curious alcohol-soluble proteid of corn. Mice were chosen as the test animals and were fed first upon a ration of zein, carbohydrates, and fats; the effects upon

growth, health and length of life were noted. A second series in which the deficiency of tryptophan was made up by additions of that compound to the diet, showed that functions and length of life were improved about one hundred per cent. While this experiment is not complete by any means it furnishes additional proof of the same kind as that furnished by Kauffmann. *If the units of structure be furnished in proper proportion the body can build from them its own typical proteids.* In fine then although our picture of proteid digestion and absorption is far from a complete one, we have much evidence to show that proteids are made in the animal organism from the deep seated cleavage products of proteid digestion.

Let us turn now to the digestion and absorption of fats. The presence of a powerful lipase in the stomach as well as in the pancreatic secretion would lead us naturally to the conclusion that the splitting up of the neutral fats was an important part in their metabolism. While the question is still an open one, I presume the majority of physiologists accept the view that the neutral fats are not absorbed as such in emulsion form, but are split into fatty acid and glycerine, before absorption. A part of the fatty acids may combine to form soaps and be absorbed as such, but probably the bulk passes through the intestinal walls into the lacteals through the agency of the bile. Bile has a marked solvent effect upon fatty acids, and a membrane moistened with it is much more permeable to fat or fatty acid than before. Bile also has the effect of increasing the lipolytic activity of enzymes, and this Hewlett has recently shown to be due not to the salts, but to the lecithin present. The lecithin very probably produces this accelaration by a mutual solvent action upon ferment and fat, so that a better chemical contact is secured in its presence. Whatever the effect of bile may be as an aid to the digestion and absorption of fats—and its role is evidently a very vital one—we have pretty positive proof of the organism to resynthesize fats. If an animal be fed fatty acids instead of neutral fat, we do not find that fatty acid in the thoracic duct; instead we find neutral fat. Glycerine has been in some way developed and combined with the fatty acid.

In conclusion I wish to call brief attention to the excretory functions of the intestine. We are accustomed to think of the intestine as an organ from which absorption alone goes on, and without any true excretory function. We know today that a large number of metallic salts are excreted by way of the intestine as well as the kidney. For example if the salts of iron, or barium, calcium, radium, etc., are introduced into the circulation they are not eliminated by the kidney

alone; a very considerable fraction appears in the feces whether the salt be introduced per os, intravenously, subcutaneously, or in any other way. The epithelial cells of the intestinal mucosa are thus seen to act as excretory organs, and the feces undoubtedly represent not only the undigested food residues but also the products of the metabolic activity of the intestinal mucosa.

DEPLETION OF METRITIS AND EPIDIDYMITIS BY THE USE OF MAGNESIUM SULPHATE.

BY C. J. WALLACE, M. D.,

Physician and Surgeon in charge Northwestern Hospital,

CHIPPEWA FALLS, WIS.

Much has been said and done to enlighten the medical profession in the use of magnesium sulphate along the line of a purge or a saline cathartic—and how well it has stood the tests, and although we are often led away on some new fad—following some combination of drugs which is lauded by its maker and some of its adherents, we at last come back to our faithful old drug and give a "dose of salts" and get our results.

It would be useless for one to say much about this drug as a laxative, excepting that I might go into the physiological action and the "why" of our purgative results following its administration. We are taught that according to the studies of Hay and others, sulphate of magnesium is a purge by reason of its abstraction of water from the intestinal blood vessels. All strong saline solutions above the strength of seven one-thousands, abstract liquids from the tissues when brought in contact with them. The recollection of these facts readily makes clear the mode of action of magnesium sulphate. Whenever a thorough purgative action is required—that is, where depletion of the intestine or absorption of exudation is to be attained —the magnesium sulphate should be given in concentrated form, so as to make its solution of as high a percentage as possible.

We know that in cases of enteritis and peritonitis, the use of magnesium sulphate is widely recognized as a proper measure for depletant effects. Also in tropical dysentery and dropsy. But so far as I can learn there has been nothing said or written about the depletant effects received from the use of magnesium sulphate in cases

of metritis, (endometritis), and epididymitis, and it is of its effects in these two diseases or conditions that I wish to say a few words, and relate my success following its use in thirty-one cases of metritis and three cases of epididymitis.

I will not detail all of the cases, but I shall do so in one or two of each condition.

CASE. Mrs. H. J., age 36, housewife, has had six children, oldest twelve years, youngest three weeks.

History shows generally good health, excepting—as she said—"female troubles." Has worked hard all her life, had midwife attend her at all her confinements, always "able" to get up and go to work on seventh day following parturition. Complains of much pain in back, thighs, head, neck, and feeling bad generally.

Examination shows temperature 102°, pulse 120; very large and swollen uterus, profuse discharge of bloody pus, rank odor, patent os cervicis; uterus very painful and fixed to the walls.

TREATMENT. Patient was put in bed and kept there. The usual intrauterine douche of potassium permanganate and copious douches of hot water were tried, ice bags applied over pelvis. This did not relieve the pain, so hot water bottles were put on. We succeeded in a partial relief of pain and discharge, but the large spongy uterus still resisted all attempts at depletion and reduction. One day when giving her the daily treatment, I was at a loss to know just what to use intravaginally as a depletant, and as I knew of the depletant action of the magnesium sulphate in the bowel, I thought I would try it here. I inserted a bi-valve speculum and through the opening I poured in one ounce of the crystals of magnesium sulphate, following it with a loose wool tampon as a retainer which was left in over night. The next morning to my great pleasure I found my patient had slept well, had little pain, and upon examination I found the vagina full of stringy fetid discharge which I washed out by a douche, leaving the uterus looking rather fresh and more lifelike. I repeated the treatment for six consecutive days and at the end of a week my patient had about fully recovered. Uterus depleted, all inflammation gone and a normal condition soon followed.

I have used the same treatment in thirty other cases and in nearly all of them I found it took generally about six to ten treatments to deplete a uterus that was bady swollen and painful.

The last case was a Mrs. H. H., a farmer's wife. age 27, has four children, had always worked hard. I was called in consultation with Dr. F. H. Francis of Bloomer, Wis., in this case. She gave a history of childbirth attended by a midwife fourteen days previously. Dr. Francis had been called five times since, and had curetted the uterus twice, had given douches twice a day and had given her the best care under the circumstances of farm life. At the time I was called, the uterus was very large and hard. It caused a tumor to rise at least two inches above the pelvic bone as the patient lay in bed. The walls of the uterus were very firm and fixed solid.

We took her to the Northwestern Hospital, at Chippewa Falls, and there used the magnesium sulphate as in the other cases, and although this was a very bad case, we reduced the uterus wonderfully and reduced the fixation.

Magnesium sulphate in these cases should of course be used in connection with intra-uterine douches. At no time have I found it to give any distress if properly used, and if the tampon is not crowded in too tight. In some cases, I have used as much as two ounces at one treatment, and again in others I could use not over one-half ounce. There is no doubt in my mind as to the depletant action of magnesium sulphate in cases of metritis or any other swelling where the substance can be brought into direct contact with the affected parts.

IN EPIDIDYMITIS.

CASE. R. J., age 26, admitted to hospital July, 1907. Family history negative. Personal history. Patient has been on theatrical stage since he was four years of age, has been doing acrobatic and "Swiss Bell ringing" work entire time. Has had gonorrhea several times. Had prostate gland removed about 18 months ago. Complete recovery with absolute impotency remaining.

Attack came on with severe constipation and tympanites and swelling of left testicle, with much pain and tenderness. Temperature 104°, pulse 140. Frequent attacks of vomiting, abdomen very painful. Had been sick three days when I was called. He was then removed to the hospital.

TREATMENT. A high rectal tube was passed and a glycerin enema given which was followed by good results. This was immediately followed by a soap enema which resulted in a thorough cleaning of the lower bowel, and consequent relief of much pain and distension.

Patient was now placed in bed, and cold applications by means of a cloth wet with a cold saturated aqueous solution of magnesium sulphate was placed over left testicle. These cloths were repeated continually for 36 hours, at which time the swelling and pain had all gone. Of course, there was a slight tenderness about the testicle, but the patient was able to get up and be around without complaining. I gave calomel and intestinal antiseptics for the bowel condition.

I relate this case because the patient said he had been treated for epididymitis before, but never had such results as with the magnesium sulphate. The other two cases were not as severe as the one cited, but the results were good in both. Others may know of many more good uses of this old drug, but I thought I would say just a word about my experiences with it in these two classes of cases.

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EDITORIAL COMMENT.

COUNTY SOCIETY SECRETARIES—AWAKE.

Dr. E. L. Boothby, Chairman of the Council, is demonstrating his eminent fitness for leadership by exhibiting customary energy in directing the affairs of the Council. Elsewhere in this issue are printed letters of information and instruction sent by Dr. Boothby to all the councilors. Rightly does he emphasize the importance of the post of secretary. It is indeed this functionary upon whom, more than anyone else, depends a society's success; and conversely, a society that is alive and active is, for the time being at any rate, a good indicator of the energy of its secretary.

So when the choice is made at the next annual meeting let the members of county societies make their selection judiciously. Dr.

Boothby says: "The best doctor does not necessarily make the best secretary; then get the best secretary possible in each case." If you already have the best man in your society in this position, make him stay there at all cost. If not, seek out the best man, one with energy and aggressiveness aplenty, whose ability fits him for so important a post. If the selection is made upon these lines, the secretary will no longer be merely the agent of the society's president, a sender of notices, a recorder of minutes of meetings, but he will become an important director in his society's work. The position will be appreciated as an honor of no less magnitude than that of the president, and with prerogatives of equal importance.

NEW MEDICAL COLLEGE AT THE UNIVERSITY OF WISCONSIN.

Believing that state support is necessary for the best progress in medical education and medical science, we have heartily endorsed the plan to establish a College of Medicine and give the first two years of the medical course at the State University, requisite authority for which was granted at the past session of the legislature.

We have recently received a Preliminary Announcement of the new college which is to open this fall. For matriculation two years of college work are required—including special training in physics, chemistry, biology and language. Similar requirements are in force in a considerable number of the better schools; they are in force at the University of Minnesota and will soon be in force at the University of Michigan and Iowa, and are likely to be the minimum requirements at most of the leading institutions. For two years of preparatory work and two years of medical work the degree of B. S. will be granted. The M. D. degree may then be obtained by two years' future study at some school with abundant clinical facilities. Full credit will be granted for the work at Wisconsin.

The aims of the college are stated to be fourfold.

1. To encourage a thorough preliminary medical education and to offer adequate facilities for a thorough preparation for clinical work.

2. To aid physicians and others in the State to keep up with the rapid advance in the application of science to medicine.

3. To promote the development of preventive medicine and hygiene.

4. To stimulate research in the sciences on which medicine is based.

A distinct feature will be the development of practical laboratory

courses in physiology, physiological pathology, pharmacology, and toxicology, in addition to the more usual courses in gross and microscopic anatomy, pathological histology and medical chemistry. With a few exceptions the laboratory courses in normal and pathological physiology in this country are meagre and inadequate.

We wish the University all success in the new undertaking. We think that every physician in the State should offer his hearty cooperation.

THE PHYSICIAN AS ACCUSER. A QUERY.

A correspondent (vid. p. 239) calls attention to our failure to give due value, in an editorial in the July JOURNAL, to one element that enters largely into many suits for malpractice, viz., the importance of the "shyster doctor" in aiding and abetting—even instigating such suits. Dr. Mueller is right, without doubt, and even though the physician does not always appear as the accuser, he unquestionably frequently stands back of the prosecution in his efforts to damn a fellow physician.

Just how the remedy shall be applied in such a case, is not easy to determine. Injustice dare not be done. "Unceremonious expulsion" is a serious business. Is it "unprofessional conduct" to accuse a fellow physician of wanton carelessness, thus fastening upon him the presumption of guilt and the need of publicly defending himself? Irrespective of the truth or falsity of the charges made, in any given case, is it unprofessional—unprofessional in the technical sense in which we physicians use the term—for a physician to assist in the prosecution of another physician? (Quacks and fakirs and abortionists are not under discussion.)

If these practices be "unprofessional", can expulsion from societies be carried out? Expulsion from a society entails a great stigma, doubtless richly deserved in many cases. Ostracism can, of course, be practiced, and any one so vile as to assist in a fellow practitioner's prosecution, unless the grossest disregard of human rights be shown, has earned this—perhaps as keen a punishment as can be administered.

But this is a big subject, one worth careful attention. Every good physician citizen is interested. We are not willing to have the last say. We want to see it considered from every standpoint, so that this discussion may be the basis of future action by the State profession.

Let us have a liberal discussion, sane, sensible, and strictly to the point. Cite your cases, if by concrete cases you can the better found a basis for judgment.

Dr. Mueller's point is well taken. Can his position be successfully maintained?

HEMORRHAGE AND TRANSFUSION.

The brilliant results obtained by modern surgery of the cardio-vascular system make it the duty of everyone engaged in active surgical work to become acquainted with this specialized technique, not merely by study, but by the practical experience of animal experimentation.

There is no part of this work that is of more importance than the transfusion as developed by Dr. George Crile's exact and convincing work, which has put this procedure among the simple, safe, life-saving operations. The clinical limits of its application are as yet incompletely determined, but its capabilities are established by the results already published.

Too frequently both medical and surgical cases are observed in which death apparently is directly consequent upon a functional incompetence of the nervous centers, entirely uncontrollable by the usual forms of treatment. In many of these cases the cause is apparently due to an anemia of the central nervous system and therefore directly amenable to transfusion. The possible dangers resulting from hemolysis and even hemagglutination are real, though apparently so slight as to be negligible. The one fatal case recorded (*Journ. Am. Med. Assoc.*, Vol. 49, 1907, p. 385) might have more significance were it not for the fact that transfusion finds its application only in the presence of conditions so grave as to indicate the futility of less radical methods. In addition, Crile has not in his experience observed the least ill effect from the action of the blood of the donor upon that of the donee in vivo, clinically or experimentally. His keenness of observation and integrity justify the acceptance of his results in preference to others whose comparatively limited experience possibly bring up the question of a less accurate technique or an error in judgment in the selection of the case for treatment.

Dr. Crile's paper, read at Superior, and published in this issue of the JOURNAL, will be found of great interest, and must win the hearty applause of all.

CHILDREN'S SHOES.

It is a favorite statement with some theologians and psychologists that a certain state of mind may be induced by assuming the positions and making the gestures which are the natural expressions of that state of mind when it is spontaneously present; that a feeling of reverence may be induced by assuming an attitude of reverence, cour-

age restored by putting on a bold appearance, and serenity obtained by smoothing the wrinkles from between the brows and putting on a smiling countenance.

It is not intended to argue the question here; we are all willing to admit that there is some truth in it. But how long can one preserve a serene, unclouded countenance if one's feet hurt? How deep an interest can a growing girl or boy take in either study or recreation when the backs of the heels have to be kept pressed on the floor to relieve the squeezing of the toes in a pointed shoe? How much pleasure is there in a country walk to one who must hobble along on high heels? A boy in this condition has no desire to walk or run. His idea of comfort is to sit with his feet elevated and smoke cigarettes. A girl under similar circumstances does not so readily form the tobacco habit but she does grow up in a state of muscular indolence and undevelopment, her idea of exercise being a slow walk along a level pavement, and she reaches maturity with the physical basis for much neurasthenia fully prepared for service. The furrows between the eye brows deepen, the expression of discomfort becomes permanent, and our psychological friends would tell us that the whole nature is made less sweet.

"Let me make the shoes of a nation and I care not who makes its laws" is a slight variation on the old quotation, but it would have more bearing than the original form on our unsinging age.

It is not a matter of indifference to the medical profession that the monstrous productions of the shoemaker's art should be allowed to interfere with the development of the children and youths under our supervision. Their influence is real; their effect is lasting. We cannot make the fashions but we can set our faces firmly against the styles of shoes now in common use and by our efforts help to create a demand for more rational forms.

THE PROBLEM OF THE LEPER.

The living death to which unfortunate lepers are condemned would seem to justify the enactment of some legal means whereby their plight could be ameliorated. Many of those thus afflicted are able bodied individuals, and it would seem that instead of housing them in hospitals or isolating them in dwellings they ought to be given the freedom of settlement upon some tract of land large enough to permit them the joy of doing something that is worth while.

Venezuela has just completed a new leper hospital at an isolated

spot on the seashore, to which the 110 patients resident at the old institution at Caracas have been transferred. The open freight cars used for transporting the patients, were burned after their return to Caracas.

One unfortunate sufferer is now kept in an isolated dwelling at the National Soldiers' Home in Milwaukee. He is an object of terror to those about him, and great care is exercised lest anyone come in contact with him in his cabin. Why could not such a person be deported to some colony—even though it be a foreign land? Deportation with a prospect of relative freedom would surely be preferable to a life imprisonment.

Even residency in such a distant land amongst strangers and foreigners would be preferable to complete isolation on home—but unwilling and unwelcome soil.

THE TEUTONIZING OF JAPAN.

The adoption of Japan into the family circle of European nations, is well illustrated by the spread of the German language in that country. German is now being taught in the universities, in preparatory colleges and in academies; its study is obligatory upon all medical students—numbering 2,700 in the medical colleges and preparatory departments.

The well known thoroughness and scientific accuracy that characterize the study of medicine in Germany, will doubtless carry their fruits with their language into this new country whose intellectuality has been forced into recognition by other nations.

MEDICINES IN ITALY.

The degree of difficulty that has been experienced in this country in introducing pure food laws, and the laxity governing the labeling at will of drugs and medicaments, are not reflected in existing conditions in some foreign countries. Italy in particular has formulated laws that outrival our own—so thoroughly do they protect the consumer by forcing the manufacturers and dealers to live strictly up to the agreements they make—by virtue of their advertisements.

Recent regulations demand that all medicines imported into Italy must indicate their complete formulae; the therapeutic benefits attributed to the preparation must be specified, it being prohibited

under penalty to attribute to any preparation qualities it does not possess; it is also demanded that evidence be offered that the manufacturers of the preparation introduced have complied with all the laws regulating the manufacture of the product in the country in which it is made.

How much influence the agitation that is still so fresh in our minds has had to do with formulating these strict importation regulations, we cannot say. It is truth, however, that foreign countries are exploited quite as much as is our own by our manufacturers of nostrums and cure-alls; it is therefore safe to assume that the crusade waged here has been carried abroad, and that regulations, as quoted, followed the action taken in our country as a result of the recent exposures of the Great American Fraud.

If other countries were to wield the cudgel in an equally effective manner, the drug perpetrators would soon have to look elsewhere for an outlet to their money-making genius.

PERSONALS.

Dr. Otto H. Foerster of Milwaukee, attended the Sixth International Dermatological Congress held at New York, Sept. 9-15.

Dr. Hoyt E. Dearholt of Milwaukee, was married on August 31 to Miss Edith Tweeden, and is touring the South in an automobile.

Dr. Julia Mickeljohn of Clinton, died suddenly while engaged in her professional work. The exact cause of her death has not been announced.

Dr. Richard Dewey, whose prospective European trip was announced in our last issue, was unfortunately prevented from carrying out his plans by important matters that engaged his attention at home.

Dr. Milton B. Axtell of Pepin, died at his home August 3, aged 81. Dr. Axtell was a member of the Buffalo-Pepin Counties and of the State Medical Societies, and had practiced in the vicinity of Pepin for the past fifty years.

Dr. T. S. Lawler, Milwaukee Medical College, class of 1901, and now President of the Iowa County Medical Society, was married on August 27 to Miss Anna Katharine Moore, of Platteville.

Dr. Samuel J. Martin, one of the oldest and most prominent homeopathic physicians of Racine and southern Wisconsin, died on September 3, at Los Angeles, Cal., aged 69 years. His death resulted indirectly from an accident sustained three weeks previously. He was a member of the Wisconsin State Homeopathic Society, had been its president and vice-president several terms.

CORRESPONDENCE.

THE PHYSICIAN AS ACCUSER.*

Milwaukee, Sept. 7th, 1907.

To the Editor WISCONSIN MEDICAL JOURNAL.

In an editorial of August 1907 on "The Question of Protective Insurance", it seems to me you overlook the radix malorum when you lay the entire blame on the unscrupulous lawyer. In order to institute a suit for malpractice the assistance of a member of our profession, except in cases of obvious, wanton carelessness, is a necessity, and without such aid and abetment is practically a physical impossibility. Witness the laudable example recently given us by the medical profession of a western town, where a law suit had to be dropped because not a physician could be found to testify for the prosecution.

It is a notorious fact that almost every damage suit that is brought is the result of the insinuations or the direct instigation of a medical practitioner. It is unfortunate that some of the men who resort to these tactics, and who have been considered a disgrace to medicine since Hippocrates' time, are members of our county and state societies.

I am led to write with some feeling, because through personal experience I knew a member of our society in a malpractice suit, to usurp the plaintiff's chair and direct the cross examination against the expert witnesses for the defence as well as against the defending physician himself.

The loss sustained by the profession at large, pecuniary as well as in dignity and reputation, is inestimable, and, I maintain, is directly traceable to what, for want of a better name, might be called the "shyster" doctor.

A remote remedy, ideal and earnestly to be hoped for, is better organization and the diffusion of loyalty in our own ranks. This remedy is, in my mind, as remote as it is ideal. As a more immediate cure, I would suggest the unceremonious expulsion of the guilty party from our societies, a thorough cleaning up first, and then, in every malpractice suit that comes up, to exhaust all the resources of the society toward absolutely discrediting such testimony in the eyes of the jury.

Protective insurance is one means to an end, and though more or less inadequate, as it seems to me, I heartily approve of it. But, so long as there remain men willing and anxious to prostitute their calling for gain, and so long as they are tolerated in our midst, so long will damage suits flourish in spite of all protective insurance and defense funds.

ARMIN MUELLER.

*See Editorial, page 234.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

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NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

THE SUPERIOR MEETING.

The wisdom as well as the justice of holding the meeting at Superior was abundantly justified by the outcome. In the first place it is only fair and considerate to take the meeting to the northern part of the State occasionally. The northern counties are just as loyal in their support of the reorganization movement as other parts of the State. Under most disadvantageous conditions they have, as a rule, maintained their organizations and promptly paid their dues. It isn't fair to ask them to come to Milwaukee—or some equally distant place every year.

The attendance—though not large, was appreciative and enthusiastic, the northern counties being well represented. The scientific program was fully up to the average—with several papers of superior merit. As usual, the time for discussion was too limited. The most obvious remedy is division into two sections—which might be tried as an experiment. The absence of Dr. Crile—though unavoidable—was a real disappointment, since his paper was one of the chief attractions.

The social festivities were an index of the generous hospitality of our hosts and afforded a rare opportunity for acquaintance and good fellowship—not to be neglected in our yearly gatherings. We shall not soon forget the charming evening ride on the lake—nor the jolly smoker, so thoroughly entered into and enjoyed by all. The arrangements for the meeting were excellent, the assembly hall for the general sessions ideal, and a long credit mark should be given Dr. Mason and the local Committee of Arrangements.

The attendance of the House of Delegates was better than usual —a happy disappointment. The first and most important meeting was held Wednesday afternoon. This time the meeting was found to conflict unduly with the general session and doubtless we shall next year, return to our previous date on Tuesday evening.

The secretary reported the total membership in 1906 as 1503. The number who had paid their dues for this year—1907—thus far, was 1456. During the year about 75 will be added, making the total membership for 1907 about 1530. This is not a large increase, but indicates that we are gradually securing the greater part of the "eligibles" in the State.

REORGANIZATION OF COUNTY SOCIETIES.

According to the original plan of organization, the 71 counties of the State were divided into 62 county societies. It has been found that many of these societies were too small and too widely scattered to maintain an organization, and it was thought best to still further concentrate into fewer and larger societies. A Reapportionment Committee was appointed and reported the following new societies: "The Ashland-Bayfield-Iron County Medical Society". "Barron-Polk-Washburn-Sawyer-Burnett", "Pierce-Taylor-Rusk", "Oneida-Forest-Vilas", "Marinette-Florence", "Green Lake-Waushara-Adams", "Trempeleau-Jackson-Buffalo", "Dunn-Pepin", "Kewaunee-Door," "Milwaukee-Ozaukee". By this concentration the total number of societies is reduced to 52, which is ten less than the original apportionment. There is a sufficient number of physicians in each combination to make a respectable society and all the little societies—with a membership of from 2 to 6—are eliminated. Moreover, every county is put in some place with some responsible sponsor to look after it. Now, with good, live secretaries to care for these new societies, and a good "medical society spirit" in the membership to back them up, we may look for a more satisfactory organization and greater progress generally. These changes have, of course, made necessary a readjust-

ment of the councilor districts—mainly in the northern part of the State. It is the hope and expectation that the secretaries now in charge will accept their added responsibilities in a proper spirit and actively co-operate in this new departure. In these changes the different councilors have been consulted, and have promised to assist in any way they can. These reorganizations should be made *at once*, so that, at the Annual Meetings in December, an effective campaign for the coming year may be laid out. Especial care should be taken in the selection of the *secretaries* of the combined societies, and it will be a good plan to ask the advice of your councilor in the matter.

Two changes were made in the Council, Dr. C. J. Combs of Oshkosh being elected councilor of the 6th District in place of Dr. J. S. Walbridge who declined a reelection, and Dr. Edward Evans of La Crosse in the 7th District in place of Dr. W. T. Sarles whose resignation was accepted. A graceful recognition was accorded an able physician and devoted member, as well as the claims of the northern counties, in the selection of Dr. Wm. E. Ground of Superior as the President of the Society for the coming year.

MEDICAL DEFENSE.

The question of "Medical Defense," suggested in the Secretary's report, was taken up and the following committee appointed to prepare a tentative plan: Drs. J. J. McGovern, H. B. Hitz and G. E. Seaman of Milwaukee; E. Evans of La Crosse; J. Noer of Stoughton; L. H. Pelton of Waupaca and C. S. Sheldon of Madison. A resolution was adopted, instructing this committee to submit at once this plan to the county societies for a referendum vote. In case the vote is favorable, the committee was instructed to proceed with the organization of an insurance organization in connection with the State Medical Society—not to be operative, however, till passed upon by the council at its meeting in January, 1908. It is probable that our provision of the plan will be an Annual Assessment of $1.00 upon each member of the Society to cover the insurance feature, making the annual dues for the State Society $3.00 instead of $2.00. This question of expense is probably the most important point under consideration. Each society should endeavor to carefully consider the question at a full meeting, and ascertain if the membership is willing to pay the additional $1.00 yearly for the benefits to be conferred. If there is to be no regular meeting in the near future, a special meeting should be called, and the plan submitted, not only to those

present, but to every member of the Society. A detailed report of the canvass, with the exact vote—pro and con—and individual opinions should then be sent to the Secretary of the Committee.

POST GRADUATE COURSES BY THE A. M. A.

Dr. McCormack, in his annual report at the recent meeting of the A. M. A., suggests a plan for systematic post-graduate instruction, covering a four years' course of study, and adapted to the needs of the average County Society. Such a plan has been elaborated by Dr. Blackburn of Bowling Green, Kentucky, and will soon be printed in pamphlet form, to be placed in the hands of the county secretaries, as well as printed in the Journal of the A. M. A. It is a splendid idea—similar to that of "University extension"—and cannot fail to be of great benefit if properly carried out. It would be a stimulus to systematic study and a genuine aid to scientific progress in the profession. It will be especially available in the smaller societies, when often, it is difficult to secure sufficient material for the program. Many counties in different states have already adopted a similar plan with admirable results. When this plan is presented let us give it a trial.

BOARD OF PUBLIC INSTRUCTION.

Another matter of interest to county societies was the adoption of the report of the A. M. A. Committee on the "Establishment of a Board of Public Instruction." In the words of the Committee, it is a plan by which "a systematic use of the public press may supply the community at large with established facts regarding medical matters of general interest and public health. To supply these facts ethically, in good taste, and without the element of individual advancement. To harmonize and give the added value of combined effort to the several interests which are now working independently for the common good along medical lines and to direct this work under the auspices of the A. M. A. The thought is to "provide timely articles on current subjects relating to the physical well-being of the community, and to the right instruction of those who are responsible for the care of households." An appropriation of $3,500.00 was voted as the salary of the secretary of the permanent board.

The material prepared by the Committee and passed upon by the A. M. A., will be at the disposal of the county secretaries, and will embrace such subjects as general sanitation, preventive medicine and

hygiene, including diet, ventilation, water supply, milk supply, etc., prevention and care of contagious diseases, medical legislation, medical education, patent medicines, etc., etc., about which subjects most laymen have very cloudy conceptions. This material may be edited and adapted to local conditions by the local Committee on Public Health and Hygiene of the Society, and published in a weekly column of the local newspaper under the auspices of the Committee. In this way the society may become a center of instruction and beneficience to the whole community. It would also react most happily on the profession itself by establishing more confidential relations and restoring prestige with the public at large.

THE NEXT MEETING

Will be held in Milwaukee—and the Program Committee will consist of Drs. C. H. Stoddard of Milwaukee, Edward Evans of La Crosse and the Secretary. Work will begin at once and a serious attempt will be made to prepare a program of scientific work on new lines and worthy the very best in the profession of the state. To accomplish this will require the cordial co-operation of all, and especially of the younger and more progressive men in the Society. We know that we may confidently depend upon this support.

C. S. S.

CIRCULAR LETTER OF DR. E. L. BOOTHBY, CHAIRMAN OF COUNCIL, TO THE DISTRICT COUNCILORS.

Dr. .....

Councilor .....District.

Dear Doctor.

At the meeting of the State Medical Society in Superior the number of county societies was reduced to 52, and a number of the District Boundaries changed. The accompanying schedule will show at a glance the present Councilor Districts, and the arrangement of county societies therein. If this rearrangement affects your district you will please reorganize the county society affected in conformity therewith as soon as you possibly can.

The increase or decrease of the size of your district, as the case may be, has seemed necessary for the greatest good to the greatest number, and we trust that you will accept the change with good grace, and will fulfill your councilor duties promptly and effectively.

VISIT EACH ONE OF YOUR COUNTY SOCIETIES AT LEAST ONCE EVERY YEAR, and as early after the meeting of the State Society as

you can. The best time is at the annual meeting in December when the officers are elected, as you then can assist them in the selection of the best man for SECRETARY. The county Secretary is by far the most important officer in any society. Upon his prompt action, enthusiasm, energy, and aggressiveness, depends the very EXISTENCE of his society. Remember that the "Best Doctor" does not necessarily make the best SECRETARY.

THEN GET THE BEST SECRETARY POSSIBLE IN EACH CASE.

He should have the confidence of his professional brethren, and be willing to labor zealously in their behalf. No society is doing its best work with an inefficient secretary, and a councilor would be justified in asking for the resignation of such a one, and seeing to it that an efficient successor was installed. In any case communicate freely with him at all times, and keep in touch with his work.

See that he notifies of all meetings of his society and that the same are reported to the Journal for publication.

Do not forget to attend to the organization (if not already done) and work of your DISTRICT SOCIETY, which should meet at least once a year, and be made largely a public health meeting, devoted to the education of the people along the lines of preventive medicine. These questions the public is becoming greatly interested in and its assistance should be sought.

DO NOT HIDE YOUR LIGHT UNDER A BUSHEL.

A medical society can do much good with little effort in this direction.

Urge the members of your county societies, to invite the Lawyers, Clergy, Boards of Health, School Boards, Town, Village, and City, Officials, to attend certain society meetings, where questions of public importance, such as sewerage, ventilation, etc., etc., are to be discussed, and you will find it of mutual benefit.

The prime object of the County Society is (or should be) to make of it a post-graduate school for every member, and the program should be built with this object in view. On the other hand, the District Society may well be made a school of instruction for the public along the lines of "how to live".

The State Society is merely a joint meeting of County Societies — a round up—in which the year's work is reviewed, and plans made for the future.

The unit of this entire matter of medical organization, is the COUNTY SOCIETY. Upon its success depends that of all the others, and experience has proven that REGULAR MEETINGS, at

definite dates, are absolutely necessary to such success. No county society can do justice to itself with less than four meetings a year, even in the most scattered territory. In cities a meeting held monthly or even semi-monthly will yield good results. Monthly meetings, however, can well be held in a majority of the counties having a membership of fifteen or more, and in many cases an evening session will prove the most interesting, for the reason that it is better attended.

Section 5, Chapter 4 of the By Laws for County Societies, makes the President, Vice President and Secretary, A PROGRAM COMMITTEE, whose duty it is to prepare a program for THE ENTIRE YEAR, and place it in the hands of each and every member on or before the first of January.

A carefully prepared program is the key to a good meeting; it unlocks the thoughts of the members. Instruct and assist the program committee in getting up an attractive program and you will be rewarded for your trouble. A medical meeting called without a well prepared program is an insult to an intelligent and progressive member.

In visiting the county society note if the secretary is keeping the card-index system properly. This is, as you know, a record of every doctor in the county, whether a member of the county society or not. If properly kept, no other book is needed except one for the minutes. It should be present at every meeting of the society.

Above all things else don't forget to urge the secretary to notify all members that the state and county dues are payable in ADVANCE, and are or should be all paid at the annual meeting in December.

A little effort at this time, and there would be fewer delinquents.

Make yourself familiar with the Constitution for County Societies so you can talk it to members when you see they need it.

At the close of the year blanks will be sent you on which you will make a report of all matters relating to the county societies in your District as well as of the District Society.

The 5th, 6th, and 8th Districts should be united in one District Society, covering the territory practically of the old FOX RIVER VALLEY MEDICAL SOCIETY. With this completed, the state would be fairly well organized as to district societies.

Wishing you the greatest amount of success in all your efforts to improve existing conditions that have been a source of vexation, and hoping you will give these matters your best efforts and early attention, I am,

Cordially and fraternally yours,

E. L. BOOTHBY,
Chairman Council.

Hammond, Wis., Sept. 1, 1907.

DEAR DOCTOR:—At the last meeting of the State Medical Society, the Districts were rearranged, and the number of County Societies reduced to 52. The following is the list of councilor districts, and the County Societies in each.

1st District. Councilor: Dr. H. B. Sears, Beaver Dam. 4 Societies: Dodge, Jefferson, Waukesha, Washington.

2nd District. Councilor: Dr. A. Windesheim, Kenosha. 3 Societies: Walworth, Racine, Kenosha.

3rd. District. Councilor: Dr. F. T. Nye, Beloit. 5 Societies: Rock, Green, Dane, Sauk, Columbia-Marquette.

4th District. Councilor: Dr. W. Cunningham, Platteville. 5 Societies: LaFayette, Grant, Iowa, Richland, Crawford.

5th District. Councilor: Dr. G. V. Mears, Fond du Lac. 4 Societies: Manitowoc, Calumet, Fond du Lac, Sheboygan.

6th District. Councilor: Dr. C. J. Combs, Oshkosh. 4 Societies: Outagamie, Winnebago, Brown, Kewaunee-Door.

7th District. Councilor: Dr. Edward Evans, La Crosse. 5 Societies: Trempealeau-Jackson-Buffalo, La Crosse, Monroe, Juneau, Vernon.

8th District. Councilor: Dr. T. J. Redelings, Marinette. 3 Societies: Marinette-Florence, Oconto, Shawano.

9th District. Councilor: Dr. D. J. Sauerhering, Wausau. 7 Societies: Lincoln, Portage, Clark, Wood, Marathon, Waupaca, Green Lake-Waushara-Adams.

10th District. Councilor: Dr. E. L. Boothby, Hammond. 6 Societies: Barron-Polk-Washburn-Sawyer-Burnette, St. Croix, Dunn-Pepin, Chippewa, Pierce, Eau Claire.

11th District. Councilor: Dr. J. M. Dodd, Ashland. 5 Societies: Douglas, Ashland-Bayfield-Iron, Pierce-Rusk-Taylor, Oneida-Forest-Vilas, Langlade.

12th District. Councilor: Dr. A. T. Holbrook, Milwaukee. 1 Society: Milwaukee-Ozaukee.

Will you please see that the number of County Societies in your District conforms to the above plan. This is to take effect at once, in order that, at the annual meeting in December (which must be held in all societies) those societies of one or more counties recently consoli-

dated, may be properly organized, ON TIME, and the years work outlined, as provided for in the CONSTITUTION, (See Chapter 4, Section 5 By Laws). Communicate at once with those secretaries whose territory is affected, and see that the cards that make up the records of members and non-members, are promptly distributed to the proper officer. If two sets or parts of sets of county society officers are found in the territory of what is now one county society, ask one or all to resign, and see that a new set are elected for the new territory, and that the new secretary has all the papers, etc., relating to the different counties in new society.

It would be well if you could meet with these new societies as soon as you can call them together, and get matters straightened out before the ANNUAL MEETING in December. Report all organizations promptly to Secretary Sheldon, and after returning old charters new ones will be given in their place.

Write me about any matter not perfectly clear to you.

Fraternally yours,

E. L. BOOTHBY,
Chairman Council.

DODGE COUNTY MEDICAL SOCIETY.

The Dodge County Medical Society met at Mayville, Wisconsin, September 2d, 1907. Twelve members were present and enjoyed themselves very much professionally and socially.

Dr. August F. Schoen of Mayville read a very interesting and instructive paper on the "Bacteriological Diagnosis of Diphtheria." The paper was generally discussed. One among the many unique features of the paper was the use of a hard boiled hen's egg for a culture medium.

At noon all retired to the Beaumont House where a bountiful dinner was served.

At the afternoon session Dr. George W. Dewey of Burnett read his report as delegate to the Superior meeting.

The question of Medical Defence, as adopted at the State Meeting, was discussed and the feeling of those present was generally favorable.

The feasibility of a County Tuberculosis Sanatorium was talked about and steps were taken to find out how many cases of tuberculosis there are in the county. The question will be taken up again at the next meeting.

The applications for membership of Drs. W. C. L. Zimmermann of Iron Ridge and E. S. Elliot of Fox Lake were read and referred to the board of censors to report at the next meeting. The next meeting will be held on the first Monday of November at Fox Lake, Wisconsin.

GEO. W. DEWEY, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its monthly meeting September 5th. The president, Dr. Gunderson, being abroad, Dr. F. C. Suitor presided. Dr. M. W. Dvorak read a paper on *Simple Ulcer of the Female Bladder.* Dr. B. C. Dorset was elected to membership. Several clinical cases of interest were related by various members. The meeting was well attended and was pleasant as well as instructive.

C. H. MARQUARDT, M. D., *Secretary.*

WALWORTH COUNTY MEDICAL SOCIETY.

The annual joint meeting of the Walworth County Medical and Dental Societies was held at Lake Geneva on September 4th. This year they had as their guests their wives, the nurses of the county and the ministers and their wives.

The meeting was held in the assembly room of the Y. M. C. A. building and the attendance was in the neighborhood of sixty. The following was the program as given:

1. Memorial—Dr. Chas. C. Blanchard.....Dr. Wm. H. Hurlbut
2. Care of the Six-year Molars.....Dr. H. P. Fahr
   Discussion opened by Dr. V. P. Cooley.
3. How May We Improve the Teeth of Our School Children.....
   .....Dr. W. R. Sayle
   Discussion opened by Dr. B. C. Campbell.
4. Management and Control of the Physical and Mental Development of the Child.....Dr. J. C. Reynolds
   Discussion opened by Rev. C. M. Starkweather.
5. When and How Should Children be Taught the Mystery of Life....
   .....Dr. Geo. H. Young
   Discussion opened by Rev. Father Nicholas.

The discussions after being opened were made general, and on numbers 2 and 4 were entered into quite freely by the ministers and ladies present.

Dr. G. Windesheim of Kenosha was present and reviewed the program as a whole and complimented the society upon its work and the general interest manifested.

Following the program the societies and their guests repaired to the spacious dining room of the Hotel Dennison, where covers had been laid for fifty and all enjoyed the splendid repast that was served. President O. S. Canright of East Troy acted as toast-master and the following toasts were given:

The Nimble Dentist.....Dr. W. R. Sale
Our Mothers.....Rev. G. W. White
Other Folks' Children.....Rev. W. F. Barnett
Our Guests .....Dr. N. L. Seelye

The excursion around beautiful Lake Geneva was enjoyed by all. Take

the meeting as a whole it was a pronounced success and the guests seemed to enjoy it as much as the M. D's. The next meeting is to be held at Elkhorn in November.

M. V. DEWIRE, M. D., *Secretary.*

BOOK REVIEWS.

Handbook of Practical Surgery. VON BERGMANN, Berlin, and VON BRUNS, Tübingen. Third, revised, edition, in five volumes. VOL. I. SURGERY OF THE HEAD. 987 pp., with 167 illustrations in the text. Stuttgart. Ferdinand Enke. 1907.

This excellent handbook has met with such remarkable success that within a few years after its appearance a second, and after three further years, a third edition, were necessary, entirely revised and presenting in all its parts the most modern views. It is intended to serve the busy practitioner, not only the specialist in surgery, for quick and exhaustive reference and orientation. This is facilitated by a table of contents and an exact alphabetical index at the end of each volume. The bibliography appended to each chapter points out chiefly such works which contain collective essays, synopses and complete enumerations of literature, so that the reader will be better guided in pursuing more exhaustive studies.

Volume I contains the surgery of the head. The injuries and diseases of the cranium and its contents receive the most able representation by none less than the late E. von Bergmann, R. Kroenlein and C. Schlatter of Zürich, and P. Wiesmann, Herisau, in the chapters, to mention only a few, on: Concussion of the brain, intra-cranial pressure and operations for it, injuries of the intra-cranial vessels and nerves, abscess of the brain, thrombosis of the veins, epilepsy after injuries of the head, the surgical treatment of epilepsy and cerebral tumors, technique of trephining, resection, craniotomy, craniectomy and osteoplasty.

Other important sections are the neuralgia of the 5th and occipital nerves by Prof. Fedor Krause of Berlin, the originator of the operation for extirpation of the Gasserion ganglion, malformations, injuries and diseases of the face, and plastic operations. W. Kümmel, Heidelberg, writes on the injuries and diseases of the ear, nose, accessory cavities, and, with E. von Bergmann, on the pharynx. Quite a number of points are here brought out, which, on account of their more surgical aspects, do not receive sufficient consideration in the special treatises on these subjects.

The diseases of the salivary glands by H. Küttner, of the jaws by C. Schlatter and O. Roemer, and the oral cavity by E. von Bergmann, are the remaining essays of this volume.

Print and paper are excellent, and the illustrations have been improved and their number increased.

Volume II will contain the surgery of the neck, chest and vertebral column, Vol. III abdomen, Vol. IV pelvis, and Vol. V extremities, and will be complete in a few months.—(C. ZIMMERMANN.)

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ORIGINAL ARTICLES.

INTUSSUSCEPTION IN THE ADULT, WITH REPORT OF A CASE.*

BY C. J. COMBS, M.D.
OSHKOSH.

There are several reasons why I presume upon the time of this Society to report a single case.

1. The comparative rarity of the condition in adults. In 12,641 cases gathered in New York hospitals during a given length of time, in which the diagnosis was made, there were only two cases of intussusception. And when we consider that only 10 per cent. of all cases occur between the ages of 41 and 60, it will be seen that it is quite possible for a surgeon to have a considerable practice and never encounter a case. Upon inquiry among the physicians of Oshkosh, it has been possible to find only two cases in which the diagnosis was made in the past ten years at any age.

2. That recovery took place although operative interference was delayed until gangrene had developed. Up to 1899, only one or two cases had been reported as recovering when there was gangrene. No less an authority than Barker as quoted by Moynihan, states that "he had never seen a recovery following resection in a gangrenous case, and never expected to. The only hope lay in early operation." It is not probable that he referred to this condition in adults, but in infants more particularly. This statement must have been made some time ago, as several have been reported lately.

3. The inability to make an exact diagnosis, which was greatly increased by my not having in mind the possibility of the existence

*Read at the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, August 22, 1907.

of this condition in the adult. And an occasional reminder of this may save some one else from a like embarrassing position.

4. As pointed out by Coffey (*Annals of Surgery*, Jan., 1907), it is the last condition of the intestines to be dealt with by scientific methods.

CASE: Mrs. C., widow, aged 54. Previous history negative, except that she had suffered considerably from constipation. Early on the morning of Oct. 23, she had a sudden attack of abdominal pain accompanied by vomiting. A physician was called, anodyne and a cathartic administered. (The bowels had moved the previous day). Pain and vomiting continued. She was seen by me on the evening of Oct. 24, about 36 hours after the onset of the attack. The abdomen was greatly distended at this time, and no tumor mass or localized point of tenderness could be found. Vaginal examination was also negative. Temperature 100°, pulse 100. The stomach was washed out and a high enema ordered, but on account of the absence of a trained nurse was probably not properly carried out. Diagnosis reserved.

On the following morning she was removed to St. Mary's Hospital, where the stomach was again washed out and a high turpentine enema given with the foot of the bed well elevated. The nurse in charge reported the passage of a large amount of gas and a fairly good stool. This was rather dark in color, but not the tarry stool commonly seen from blood. After this the vomiting ceased, pulse improved, and the patient seemed very comfortable. Palpation of the abdomen was less painful, but revealed nothing. Vaginal examination was neglected, as it had revealed nothing the previous night. It was doubtful in my mind as to the cause of the obstruction, but I felt that nature had probably overcome it. The condition continued good, and a small amount of nourishment was allowed until the evening of the 26th when vomiting and pain returned. The vomiting became fecal in character at this time, while before it had been bile-stained.

At this time she was examined by Dr. Burton Clark and me, and a pelvic examination revealed a mass in the right side of the pelvis which could not be outlined on account of the tenderness and distention which had rapidly increased. There were no stools during the 26th. A diagnosis was now made of a probable small ovarian cyst with a twisted pedicle that had escaped detection at previous examination and had caused angulation by adhesion. Temperature subnormal, pulse 120 and thready.

An operation was decided upon, and was performed on the morning of Oct. 27, four days from the onset of the attack. Upon opening the abdomen, considerable flaky fluid escaped. The mass which had been felt in the right side of the pelvis was brought into the abdominal wound with some difficulty. This proved to be an intussusception of the ileum beginning 9 inches above the ileo-cecal valve, the apex projecting through the valve about one inch. It was dark red in color, lusterless, and flaked with coagulated lymph. The wound was packed

with gauze to protect the abdominal contents. Compression at the apex with slight traction resulted in a complete circular tear of the outer coat at the entrance of the intussusception, and the slipping out of the gangrenous intussusceptum and carrying with it gangrenous portions of the mucous of the intussuscipiens. The inner and middle coats retained the same relation to each other as before any attempt at reduction. This was wrapped at once in gauze. The procedure brought the apex of the intussusceptum nearly to the original point of entrance.

Forceps were now applied to the intussuscipiens close to the ileo-cecal valve and to the ileum above the intussusception. A purse-string suture was placed in the colon around the valve, and a ligature placed around the ileum close to the valve. The ileum was now cut between the forceps and the ligature. The stump was cauterized with pure carbolic acid and alcohol, and turned in by the purse-string suture. A similar procedure was tried above the intussusceptum, but on account of the friability of the intestines it had to be made higher up by about five inches where the sutures held but poorly. The mesentery was tied off in sections.

A lateral anastomosis was now made by linen sutures, the opening being made in the intestines at least as long as the diameter of the colon. On account of the friability of the bowel I felt fearful that the sutures might tear out, so I placed two narrow pieces of gauze, one above and one below the anastomosis. No flushing out of the abdomen or other means of drainage, except the two pieces of gauze mentioned above, were used. Patient had vomited fecal matter almost continually while on the table. Pulse was extremely rapid and weak. Salt solution and strychnine were administered before the patient was taken to the recovery ward, where a speedy death was expected.

Vomiting ceased almost immediately, and by evening some water was administered by mouth, and on the second day bouillon and malted milk were given. On the second day the patient expelled gas, and on the third the bowels moved. The salt solution was administered by bowel after the first twelve hours. After a somewhat eventful convalescence the patient went home in six weeks, and now at the end of ten months is attending to her household duties.

The technic must of necessity differ widely, depending upon the extent of the intussusception and the condition of the intestine. In the case reported here, the degeneration of the outer coat would not allow of the method of Barker being used. There is no sound surgical reason why complete resection should not be performed in gangrenous cases, rather than the makeshift operation of Barker which leaves a very constricted lumen for future trouble. Nor would the method described by Coffey be applicable in this case, as he also repairs the opening made in the outer coat. There has been so far, no method that is applicable in all cases, any more than there is in dealing with the appendix, and one who attempts the operation must be prepared

to construct procedure for the case in hand. The opening in the intestines for the lateral anastomosis should be made large enough so that there will be no material narrowing, as the fecal current is already made sluggish by the partially paralyzed bowel. Murphy has pointed out that in resection in infants a lateral anastomosis is better, on account of the narrowing of the end-to-end method.

Another feature which might have helped to make the case above successful, was the thorough manner in which the stomach and bowels were washed. It would, by no means, be advisable to postpone operative measures long for this purpose, but as part of the preparatory treatment, it should never be neglected. It makes the operative procedure cleaner and leaves the bowel in a better condition for healing.

In the literature at the disposal of the writer up to 1899, it was possible to find the report of but one case of gangrenous intussusception that recovered, and that in a man 23 years of age. More lately Dowd (*Annals of Surgery,* July, 1902) reported recovery in a boy of four years, with a gangrenous intussusception of ten day's standing. John D. Rushmore reports a case (*Annals of Surgery,* Aug. 1907). Coffey also reports a case (*Annals of Surgery,* Jan., 1907), and there have been several others reported, all going to show that the condition, even in the extreme, is not always hopeless. It is quite probable that the mortality will soon be reduced from practically 100 per cent. to something like that of other abdominal conditions requiring surgical interference. But even with the encouraging results reported in gangrenous cases, the best results will ultimately come in the early recognition and operation. There is always a time in the course of the disease in which operative interference, if properly done, might save the patient with as small mortality as now attends the removal of the appendix.

The writer does not flatter himself that he would be as successful in another case that had progressed to such an extreme as the one reported, and would suggest that the general practitioner and surgeon be on the lookout, and when in doubt, perform an exploratory operation; we are sure there will be more cases reported than in the past. If we are mistaken a few times and find no such condition present, there is no particular harm done, while if the suspected condition be present, it will be the means of saving the patient.

DISCUSSION.

DR. W. E. GROUND of Superior:—Dr. Coomb's idea of making exploratory incisions meets with my approval. I think when we are in doubt we are

justified in opening the abdomen, and seeing there the exact condition of the parts involved in the disease process.

DR. GENTZ PERRY, of Amery:—I would like to ask one question; whether the incision was median or in the region of the appendix?

DR. COMBS—I made the incision to the right of the median line, through the rectus muscle.

SYMPOSIUM ON HEADACHE.

HEADACHE.*

BY L. F. JERMAIN, M.D.
MILWAUKEE.

Headache is a common manifestation of the most varied disorders of the nervous system and other organs of the body, and although occasionally of such a nature as to possess the significance of an independent affection, it is in a large majority of cases simply a symptom of diverse meaning and origin. The conscientious physician will never be satisfied with the diagnosis of "headache". He knows that this condition is merely a symptom and that careful inquiry will usually disclose the fundamental disorder, and furnish the proper guide for treatment.

Headache may be symptomatic of toxemic conditions, as in nephritis and digestive disorders; it is a symptom of abnormal ophthalmic conditions, especially errors of refraction; it occurs in catarrhal diseases of the air passages, especially the frontal sinuses; it may be the result of hyperactivity of the brain cells, as in the congestive headaches and finally, it may be a reflex manifestation of disease of some distant organ of the body.

We know very little of the structures in which the pain of headache is felt or of the mechanism of its production. The fact, however, is established that the surface of the brain is free from sensation. The meninges, especially the dura and a large part of the cranium receive their sensory supply from the terminal branches of the trigeminus, and as the meninges are also supplied by branches of the sympathetic nerve, it is reasonable to suppose that headache is the result of direct or indirect irritation of these nerves.

It has been shown that pain may be produced not only by irritation of a sensory nerve, but also by irritation of its ganglion and its

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roots. The irritation may be brought about by direct pressure, but it is more probable that, as first pointed out by Dubois-Raymond, circulatory disturbances, either direct or reflex, by interfering with the proper nutrition of the nerves, give rise to pain. That hyperemia will give rise to pain is well demonstrated by the pain following the administration of amyl nitrite, and the vaso-motor spasm so well defined in typical attacks of migraine leaves no doubt as to the effect of anemia upon the sensory nerve endings. Edinger believes that most reflex as well as toxic headaches may be attributed to vaso-motor disturbances—either vaso-motor dilatation or spasm.

It is a truism that all healthy normal bodily functions are constantly dependent upon healthy metabolism of the cells, and this is especially so in the case of nerve cells. The first requisite of normal metabolism is a good inheritance, and the second is that the cells receive a constant adequate nutrition and a degree of stimulation as is best adapted for the performance of their various functions. Too prolonged and severe functional activity of the body cells produces disorders of metabolic activity and exhaustion and renders them more vulnerable to attacks of bacteria and toxins. The three factors, heredity, toxemia, and exhaustion, are the underlying ones in the production of many headaches as well as other mental and nervous morbid phenomena. The more pronounced the inherited instability of the nervous system and the greater the susceptibility of the vaso-motor system to toxins and reflex irritants, the more likely will trivial disturbances lead to headaches. There are unquestionably cases in which a lowered condition of nutrition coupled with mental overwork produces a condition of exhaustion of nerve cells, and exhaustion in itself leads to toxemia. Every physician has experienced the headache following the loss of an entire night's rest, or, as frequently happens, several nights' sleep and rest.

That processes originating in the higher cerebral centers through psychical disturbances—such as grief, worry, fright, etc., will produce headache, is well established by clinical experience.

Although the location and the character of the headache is of value in the recognition of the underlying pathologic process, too much value should not be placed upon such location or character; nor can definite rules be formulated that would apply in every case.

Leszynsky classifies headache into functional and organic, and the functional forms he subdivides into toxemic, neuropathic, reflex, circulatory and migraine.

Toxemic headache is due to retained excrementitious substances from constipation, intestinal indigestion or fermentation, gastric dis-

ease, uremia, or the pregnant state. It is well known that gastro-intestinal disease is a frequent cause of headache. The disturbance may be organic, but in the large majority of cases is functional. The organic disease primarily seldom gives rise to headache, it being due rather to the constipation, fermentation, and autointoxication—the direct result of disturbed function. Individual susceptibility and the nervous stability of the individual enter largely as factors in these cases. It is well known that some individuals may be constipated and without bowel action for almost incredible periods of time and not suffer in the least from digestive trouble or headache; while in others, the writer for instance, a single skip in the usual regularity occasions a severe pain in the head. Many substances supposed to be the toxic agent have been described, but whether the substance be a leucomain such as uric acid, paraxanthin or xanthin, or a ptomain such as peptoxin, acetone or diacetic acid, the fact remains that the therapeutic management based upon the theory of absorption gives the most satisfactory results.

Bunge claims that the stomach is an organ of protection, that by disinfection of the ingesta by the normal acids the formation of ptomains is prevented and auto-intoxication averted. Some of the most excruciating examples of headache are those due to acute intoxication from ingestion of food contaminated by toxins of decomposition. It is, however, possible that a second factor is contributory, namely, reflex irritation through the vagus from fermentation of food and gaseous distention of the stomach. Headache due to absorption of toxins from the gastro-intestinal tract is usually located in the frontal region, but may be diffused over the entire head. The urine is of high specific gravity and contains indican.

Uremia. Headache due to renal insufficiency is of common occurrence. It may be toxic or congestive. The former may occur in any form of renal disease and is due to retention in the circulation of toxic products; while the latter is due to disturbed cerebral circulation, notably high blood tension, and occurs in the chronic interstitial forms of nephritis, accompanied by general arterio-sclerosis and cardiac hypertrophy. The pain is situated most commonly in the occipital region, extending to the neck, and is frequently associated with vomiting, vertigo and optic neuritis. Headache is often a premonitory symptom of puerperal eclampsia. It is often associated with hebetude, depression of spirits, edema, and insomnia, and is due to the presence in the circulation of some toxic substance the true nature of which has not yet been determined.

Products of Defective Metabolism. Toxic substances accumulating in the blood in rheumatism, gout and diabetes mellitus fre-

quently give rise to headache. In rheumatism it may be due to the toxins of the affection or it may be a true myalgia, located in the scalp and affecting the occipito-frontalis muscle and its aponeurosis, often also the tendinous insertions of the splenii, sterno-cleido-mastoid and scaleni muscles. The affected muscle is found thickened, indurated and tender. This so-called "schwielen" headache is extremely common in women. It is due to exposure to cold and wet; frequently from washing the hair. The pain often radiates into the scapular and deltoid regions.

In gout the headache may be caused by the toxic products of defective oxidation—uric acid or lithemic headache—or by circulatory disturbances accompanying contracted kidneys. Haig has called special attention to the headache associated with the retention of uric acid in the system. In diabetics headache with hebetude, depression of spirits, acetone and diacetic acid in the urine are valuable premonitary symptoms of coma.

GERM TOXINES OF INFECTIOUS DISEASES. In general it may be said that headache occurs in all diseases accompanied by fever. It is a pronounced symptom of the early stage of typhoid and typhus fevers, smallpox, influenza, croupous pneumonia and malaria; in the apical pneumonias of children the headache may be so intense as to simulate meningitis.

Various drugs, such as alcohol, tobacco, coffee, lead, nitro-glycerine and the iodides, will produce headache.

A pulsating headache is common in Graves' disease, probably due in part to the tumultuous action of the heart and in part to the autotoxemia from hypersecretion of the thyroid gland.

CIRCULATORY HEADACHE. Both hyperemia and anemia of the brain will give rise to headache. Eulenberg describes a headache due to active hyperemia as "cephalalgia vasomotoria"; it is more frequently acute, throbbing, pulsating in character, accompanied by vertigo, tinnitus, insomnia, mental confusion and delirium. It is aggravated by lowering of the head, coughing or sneezing, and attacks some individuals periodically. The condition is produced through mental overwork, emotion, alcohol, the excessive use of tobacco, sunstroke and injuries to the head.

PASSIVE OR VENOUS HYPEREMIA is in the majority of instances a chronic condition due to mechanical hindrance to the return of the blood from the head by tumors of the neck, cardiac disease, pulmonary emphysema or chronic cough. The headache is influenced by posture, coughing, sneezing and muscular effort.

Cerebral anemia is but part of a general condition of anemia or malnutrition. Headaches are common whether the anemia be due to loss of blood or a chlorosis. It is a diffuse dull pain usually relieved by the recumbent posture, associated with syncope, dizziness, palpitation and depression.

MIGRAINE, also termed sick headache, hemicrania and paroxysmal headache.—A periodical affection characterized by paroxysmal attacks of headache confined to one side, chiefly to the course of the fifth nerve. It occurs more commonly in women and is an inherited affection, being practically the only form of headache which merits recognition as a distinct disease. An inherited instability of the nervous system is the underlying factor in all cases, while errors of refraction, indigestion and toxemia are operative in the causation and persistence of the affection. Gouty and lithemic conditions also play an important part. Exciting causes are fatigue, mental over-work, anxiety, constipation, errors in diet and emotional disturbances. Irritability, depression of spirits, somnolence, dizziness and transient ocular disturbances may precede the pain in the head. The headache increases in intensity until the patient is obliged to go to bed. There is general hyperesthesia, and the pulse and temperature are normal. The pain is usually confined to one side of the head, but may occur on both sides alternately, or at the same time. Nausea and vomiting are almost constantly present at some time during the attack. Visual disturbances in the form of photophobia, flashings of light, blurring of vision, hemianopsia and transient amblyopia are observed. The pain may persist from a few hours to three or four days, and the interval between the attacks varies from two weeks to several months. Migraine is usually an affection of adult life, but has been known to appear in childhood, disappearing with advancing age. The menstrual period predisposes to an attack, and attacks of migraine have at times alternated with epileptic seizures, or epilepsy has followed migraine which had disappeared.

The pathology is obscure. The most widely accepted theory is that the attacks are periodic discharges of nerve force originating in the cerebral cortex or sensory centers involving the trigeminus and pneumogastric nerves. In many respects the pathology resembles that of epilepsy: a sort of explosion or brain storm, coming on often with considerable regularity and without apparent cause.

INFLAMMATION OF THE PIA, or LEPTOMENINGITIS is always an infectious process. The acute form is cerebro-spinal in type and is often purulent. Extremely severe and persistent headache is a prominent symptom and may be associated with vertigo, vomiting, general hyper-

esthesia, rigidity of the neck, inequality of the pupils, mental confusion and coma. In the chronic form of the disease the headache is persistent, its severity depending upon the extent of the process. Signs of intra-cranial pressure, such as vomiting and optic neuritis, develop.

INFLAMMATION OF THE DURA, OR PACHYMENINGITIS gives rise to circumscribed headache; it may be confined to one side of the head, or may extend to the pia, and is then often accompanied by typical Jacksonian epileptic seizures and hemiparesis on the opposite side of the body. It results from traumatism to the skull, caries of the bone, syphilis and alcoholism.

Headache is a very important stigma of CEREBRAL SYPHILIS, being present in at least three-fourths of all cases. The pain is generally intense, referred to the depth of the brain and located in a definite region. It is characterized by regular exacerbations followed by remissions and intermissions, absent or quite endurable during the day time, reappearing during the early part of the night and gradually subsiding towards morning. Extreme tenderness on pressure only occurs when the periosteum or bones are involved. The morbid process is that of an arteritis, gumma or a gummatous meningitis.

Headache in arterio-sclerosis is essentially the result of circulatory disturbances, chiefly anemia interfering with the nutrition of the nerve cells.

Oppenheim described an acute affection of the brain as "Acute primary hemorrhagic encephalitis". It most frequently complicates or follows influenza and has been termed influenzal encephalitis. The headache is very severe and affects the entire head. It is accompanied by vertigo, nausea, vomiting, apathy, general depression and unconsciousness. In chronic alcoholics an acute hemorrhagic encephalitis develops, confined mainly to the gray matter of the floor of the fourth ventricle. This is often preceded for days or weeks by a severe headache.

Headaches in school children are the result of a complexity of causes. They usually come on after the child has been at school for several weeks and are due to confinement in ill-ventilated and overheated rooms, excessive mental occupation, irregular and hurried meals, eye strain or a faulty system of education. The headache of adolescents which begins during or shortly after sexual development, usually rests upon a neurasthenic basis and unless carefully managed leads to the hypochondriac state.

TREATMENT OF HEADACHES. The treatment of headache is that of the fundamental disease upon which it depends. In no other ailment must the causal indication be so closely adhered to as in this.

Successful treatment hinges upon correct diagnosis not of the headache, but of the underlying causes, and correct diagnosis is impossible unless we approach the patient from a broad standpoint, ever bearing in mind the fact that headache may be the result of disturbed function of every organ of the body, and that in one and the same patient different conditions may at the same time be operable in its production. Headaches due to disturbed function of the alimentary tract are best treated by the removal of the irritating or toxic substance; empty the stomach by emesis or lavage; move the bowels by cathartics or colonic flushings. Prophylactic measures are all-important and consist in the proper application of the laws of hygiene; a modified diet to suit the individual case, and a correction of bad habits—excessive eating, irregular hours of sleep, over-work and the excessive use of alcohol, coffee or tobacco. In acute constipation a mercurial or saline laxative is sufficient, coupled if necessary with high rectal irrigation. If the condition is one of chronic intestinal autotoxemia measures directed to the restoration of the normal bowel action must be instituted. The success of the castor oil treatment for neuralgia probably rests upon its action in the clearing of the intestinal tract of toxic substances. It is of the utmost importance to study carefully the patient's habits of eating, drinking, exercise, sleep and work. The treatment should be considered primarily dietetic and hygienic, and medicinal substances should occupy only a secondary place. Headaches due to cerebral congestion may be relieved by the avoidance of all forms of cerebral stimulants and psychical excitement; regulation of diet, free purgation by calomel and salines, and the administration of bromide of potassium and ergot. In headaches from cerebral anemia rest in bed with the head low, and special attention to the cause, which is usually a general anemia, are of prime importance.

The treatment of migraine may be divided into that between the attacks and during the attacks. Patients with migraine should lead a regular life free from excesses of any kind. Mental over-work should be avoided and some out-door work systematically practiced. All sources of reflex irritation should be investigated and removed. As a rule patients know from experience what brings on an attack and should be directed to avoid such exciting causes. The neurasthenic state so often present requires careful management. The condition of the blood should be determined and any existing anemia or chlorosis corrected. Loss of sleep is keenly felt by most migraine patients and irregular hours of sleep must be avoided. Hydrotherapy is useful to improve the general nerve tone, in reducing nervousness and increasing the elimination by the skin. Between the attacks Charcot and Moebius

recommend the use of bromides as used in epilepsy. Moebius gives from 30 to 60 grains in one dose in the evening, increasing the dose if the attacks are not reduced in number and intensity. As a rule the drug must be taken for a long time in order to achieve results. In a number of cases I have had excellent results from the use of the extract of cannabis indica in one-fourth grain doses. In the treatment of the attack, if violent, nothing is more serviceable than a hypodermic of morphine with atropine. The hot water bag or hot compresses often give great relief. Rest in bed in a dark quiet room is preferable. A brisk cathartic often mitigates and shortens the attack. The coal tar preparations all relieve the pain, but should not be used in the enormous doses, recommended by some authors. I have personally seen a number of patients acquire the acetanilid habit from the use of headache wafers in migraine. Caffein, camphor, sodium salicylate or sodium bicarbonate, may be used singly or in combination.

HEADACHE FROM THE POINT OF VIEW OF THE NEUROLOGIST.*

BY B. M. CAPLES, M.D.
WAUKESHA.

In attempting to add a few words to this symposium on headache I shall find great difficulty in confining myself to the neurological branch of the subject as there are so many etiological factors to be considered.

The word head-ache describes itself and is applied to any diffuse pain affecting any part of the head. The pain may be diffuse or localized and not confined to a particular nerve. It may be paroxysmal or continuous, depending entirely, of course, on the underlying cause. It is certainly the most common symptom in the various nervous diseases. I believe I do not put the percentage too high when I say that 50 per cent. of the women in this country, or I may perhaps include all civilized countries, suffer from it. Men are less subject to it, but many school children are afflicted, at least 15 to 20 per cent.

Leaving out the causative factor that will be dealt with by the ophthalmologist, aurist, internist, gynecologist, and nose and throat specialist, I must practically confine myself to neurasthenics, hysterics, epileptics, and those suffering from the various forms of neuritis.

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The variety and location of the pain differ greatly, the frontal headache being the most common, then follow temporal, occipital and diffuse in the neurasthenic. We have pressing, constricting, or band-like headaches, often described by the patient as a feeling as though a band of iron or band of rubber were about the head. In the hysterical and epileptic we have the grinding, boring pain.

Headache is one of the most common symptoms of neurasthenia. Headaches due to errors of refraction produce a condition of neurasthenia with marked depression. In neurasthenia the headache is usually constant and without vomiting.

Persistent headaches are common in neurasthenics, and in those suffering from spinal, irrational and specific diseases. When I say persistent I do not mean necessarily of the same intensity, for there are exacerbations and partial remissions.

I have found that each individual case requires special attention and special treatment.

You will always be required to experiment at least to some degree in each particular case. No routine treatment will suffice in this most difficult problem. You must not only learn the idiosyncrasies of your patient, but of his headache as well.

The fluctuations of blood pressure in the cranium are probably the cause of some considerable irritation of the terminal branches of the trigeminus in the dura. When these fluctuations occur frequently, causing an unequal pressure of blood in the two sides of the brain, the irritability of the nerve endings may become greatly increased so that even a slight cause may produce a condition of disease. In many cases there is a slight rise of temperature, but in the majority there is no febrile disturbance. In some forms of headache there may be a most ravenous appetite even during the greatest pain, while in others there is complete loss of appetite.

Many patients complain only of the headache, believing it to be the primary cause of all the disagreeable feelings, and it never occurs to them that there is some other etiological factor.

In the absence of diseased arteries, where there is a thrombosis I believe the migraine responsible for the lesion. In other cases the migraine is evidently only symptomatic of the diseased arteries. In a case recently seen the headache was preceded by a feeling of depression and malaise for several hours, then there was felt the onset of the pain usually in the right side, gradually extending until both sides were affected; then came the nausea and vomiting with temporary relief after vomiting. First the vomited matter would be only mucus, later

mixed with bile. Free catharsis followed by some hypnotic which induced sleep, brought relief. There was always great depression with the attack, with some aphasia; cerebration markedly slow during and about one day following the attack recurring about every two weeks. Marked photophobia during the attack. Attack occasionally occurred during the menstrual period, but I believe this was only coincident. Patient was of a very neurotic family, members of which had suffered from mental disease.

Migraine is a constitutional neurosis and comes in periodical attacks. The throbbing headache is characteristic of migraine and the pain is usually relieved by vomiting, which is not true in other forms of headache. Migraine is a common form of headache, perhaps I should say a special form, but I think should be touched upon here although I have not time to elaborate upon it, but merely to mention later a few cases seen. Migraine occurs at quite regular intervals in many cases and is often an early symptom in tabes and general paralysis. Like all headaches it is but the symptom of some general pathological condition. There may be no change in the nerves, still the membranes are often congested, or the nerves may be anemic. The treatment must be directed to the cause. Careful attention should always be given to the diet, bowel action, and an absolute abstinence from the use of tobacco and alcohol (these two latter should be made permanent); then regulate the work, never allowing over-work. Complete rest, temporarily at least, should be enjoined. There may be migraine accompanying organic brain disease usually along the course of the fifth nerve. Usually there is a mental depression either with pallor or flushing of the face; occasionally there will be some slight paralysis of the oculo-motor nerve. My observation has led me to believe that these attacks are more likely to occur in the winter than summer, although I have seen some very severe cases in the warmest weather. The foregoing condition may be complicated with other forms of headache coming on at separate intervals, or simultaneously. Direct the treatment toward securing the best general contitutional condition possible, the best tone to the nerves; good nourishing diet; plenty of out-door exercise, freedom from care and worry, of course not forgetting to relieve any visual defect.

As to drugs, there is such a diversity of opinion that I shall leave you to decide for yourselves. Cannabis indica, phenacetine, codeine, nitro-glycerine and aspirin, are used. You will not be required to prescribe rest as the patient will seek that voluntarily.

There may be thrombosis of the vessels of the optic nerve during

an attack of migrainé. Some years ago I had such a case in a young woman about twenty years of age. She had been subject to headaches for several years and had not been feeling well for a day previous to the attack. She stated that while sitting on the porch everything about her grew suddenly dark immediately after a severe paroxysm of pain. She attempted to enter the house but could not find the door, called for help and was found to be entirely blind. When I examined her there was atrophy of the optic nerve.

These headaches are often hereditary especially in neurotic families. I have seen them in the third generation in a number of cases. In many cases the ancestors have been affected with some other neurosis.

OCULAR HEADACHE.*

BY H. V. WURDEMANN, M.D.

MILWAUKEE.

Headache is a pain, a call of nature for relief. The alarm bells of the system are the sensory nerves and these are aroused by the exhaustion of the neurons by over draught upon their store of neuricity.

From a rather extensive study of the relationship of weak eyes to headache and other reflex nervous disturbances, ranging from the work of Donders (Refraction und Accomodation des Auges, 1864) to and through the voluminous contributions on the subject of the last few years, I find that it has almost entirely been described from the clinical side.

We will take up our subject from the pathologic standpoint—a view from which to my knowledge it has not been generally observed, especially from the point with which this essay is required to deal. Headache is a notice that there is something wrong, that the bank is running low, or that the manufactory is working overtime, or that the neurons are hindered in their work by toxins. Thus this symptom is concomitant with many diseases—practically all infections and chronic toxemias.

Its causes are traumatisms—as jars and blows of the cranium, disturbances of intracranial circulation causing anemia, hyperemia or

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inflammation; intracranial pressure, as in tumors or meningitis; sinus pressure or inflammation, as in frontal sinus disease; neuritis of the facialis, especially from dental sources. Toxins from incomplete intestinal digestion and defective elimination and disturbances of blood pressure are first in the mind of the physician, and hence his therapy is generally directed towards cleaning out the alimentary tract; next he gives nerve numbing drugs—notably the coal tar products, phenacetin being perhaps the safest of these; or in extreme cases morphine, either being at times quite necessary to relieve the ofttimes agonizing pain and prostration.

Aside and perhaps more common than all of these causes, most of them known since the beginning of our art, comes the factor of eye strain—which, however, was not recognized until our generation, and is not even now accepted by all physicians. Ophthalmologists however are generally in accord on this point. I could report hundreds—nay thousands of cases who owe their present comfort and even their usefulness in this world to the prevention of otherwise unpreventable misery from headaches, by the wearing of glasses which I have prescribed. Other workers in our specialty could swell this number to the millions. This is an uncontrovertible and well known fact despite the position taken by some writers who have declaimed against the lassitude of the profession on this subject. One voluble, though interesting writer, has shown, that, in his opinion at least, valuable lives have been ruined and others made miserable by eye strain,—that many gifted individuals as Darwin, Carlyle and others have achieved their eminence handicapped by unrecognized eye strain.

Indeed, a writer who has deluged the medical press with articles on eye strain and criticisms of the quality of refraction work done by the present generation of American and European oculists, recently writes (*American Medicine*, July 1907): "The reporting of cases cured demonstrates, *per se*, the correct testing, proper prescription, and right adjustment of spectacles." "Upon clinical demonstration, therefore must be based the proof or disproof of the theory of eye-strain believed in by so many good physicians."

Despite the gush and gibes of this same author and a few others at the "doubters, deniers and flouters (who) have not done good refraction work, who are supposed to be leaders in ophthalmology" I wish to state that in my opinion refraction work is generally well done in America and that the relation of the eyes to headache is understood, believed and properly attended to by all reputable physicians. Oculists who habitually use cycloplegics do very good refraction work. I

certainly do not find occasion to criticise the work done or change the glasses of every one out of fifty who come to me who had previously had their refraction corrected by other ophthalmologists. The refraction is subject to changes, the globe is not an unchangeable body. In some cases it changes in shape, according to use, lid pressure and the general health. These facts are generally well known as to myopia, where the sclera stretches from the pulling of the extra-ocular muscles and the eyeball becomes longer than normal. I find a fair proportion of my own cases, aside from presbyopics, to need a recorrection every year or two. Hence the general advice to have the eyes remeasured every two years.

Even if an exact correction be not given, a slight difference of 0.25 or 0.37 D. or 5° in the cylinder or up to 1.50 D. in some cases in the sphere, makes little difference to the patient, and any one of a half-dozen combinations will give sufficient help to relieve his symptoms. Slightly under (we generally give under correction in hyperopia—fully correcting the manifest and usually one-half to two-thirds of the latent hyperopia), or over correction is the same to the patient as a half-inch more or less in the length of the cripple's crutch —he can go fairly well with crutches of slightly different sizes. Glasses are crutches anyhow and we only approximate emetropia by correction of refractive errors.

I wish it definitely understood that I plead for careful correction by properly credited physicians and deplore the slip shod work of the unqualified prescriber and the spectacle seller. To a medical man this work is not difficult, and as at least 75 per cent. of people who have chronic headaches need glasses, though he may not do optical work himself, he should know enough about it to recognize the ocular signs and send his patient to a proper place for the prescription of lenses.

Probably 90 per cent. of all eyes are not ideal—they are handicapped by being too short, not round, too long or not working well together. Most of them are very little out of focus or are not subjected to work or environment that may bring out the symptoms of their slight defect. Some persons go through life with considerable ametropia, or muscular insufficiency, and yet do not suffer any symptoms. These persons have brain cells that generate sufficient neuricity to overcome the handicap, while others who have no nerve force to spare may even be rendered invalids by a similar defect. Aside from the benefit of lenses, ordinary glass cuts off some of the actinic rays of light, smoked glass more, and amber glass nearly all, so that even a plano lens rests the eye somewhat for out-door use.

Ocular headache is usually a dull pain located in the forehead and temples and includes the eyes, but it may be located anywhere in the head or back of the neck. Indeed the nucha and the lumbar region is the chief location in neurasthenics. The eyestrain may excite over-activity and ultimate exhaustion of the neurons of other centers, and cause indigestion, constipation and trophic disturbances in the head or trunk.

Headache of spasmodic nature (ophthalmic migraine) may arise from eyestrain, but the exciting cause is usually autotoxemia. With this there is hemicrania, hemianopia and hemiplegia in the severe types, accompanied by anorexia and emesis—sick headache. Correction of the refraction, however, removes the principal defect and prevents the eyestrain, thus relieving the patient.

Eyestrain headache is primarily muscular, due to over strain of the accommodation or extra-ocular muscles; coming on after excessive or unwonted use of the eyes at reading or close work, sight seeing, car riding, etc. This causes an extra draught of neuricity which depletes other centers, notably the trophic centers, causing a call from nature for relief manifested through the sensory nerves by pain.

We will then take it for granted that weak eyes do cause headaches and other disturbances of the nervous system evidenced even in the stomach, liver and skin as well as in the head, that glasses cure these symptoms and that not only are these facts generally recognized, but that the refraction is usually properly corrected by ophthalmologists. Therefore let us wear glasses—those of us who need them, and under modern conditions this means a large proportion of civilized persons,—at least a majority of those who read or earn their living by close work.

HEADACHE FROM THE POINT OF VIEW OF THE NOSE AND THROAT SPECIALIST.*

BY C. D. CONKEY, M.D.

SUPERIOR.

The headache problem is one that every practitioner in medicine is often compelled to face. The nasal cavity frequently holds the solution hidden away in its recesses. It is the custom nowadays for the family physician to refer his headache patients to the oculist for an

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examination. The rhinologist is rarely so honored. By this omission, I am convinced that many chronic headaches remain unrelieved. For many years it has been known that certain forms of nasal disease were capable of producing headache. Hack, in his well known monograph upon Nasal Neurosis twenty years or more ago, called the attention of the profession to this form of disturbance, and since then his observations have been verified by many members of the profession, and it is now freely admitted that numerous headaches originate from the nose or the accessory sinuses. The nose as a breathing organ, is extremely prone to malformations and inflammatory diseases. These malformations and inflammations produce obstructions both in the cavity and in the ostia of the sinuses, pressure upon opposing surfaces and local irritations, a set of imperfect conditions liable to bring about headaches.

These headaches may be of three distinct varieties: (1) the reflex neurotic headache, due to pressure; (2) the sinus headache, due to septic infection from the sinuses or interferences with their drainage; and (3) the headache due to nasal obstruction. I think I am justified in dividing them into these classes, though the nomenclature may not be all that is desirable.

Under the first class I place that considerable number of patients who suffer from chronic headache, the exciting cause depending upon some reflex irritation, generally a pressure in the nasal cavity. Two opposing surfaces in contact or pressing tightly against each other is usually the condition present. The fact that reflex headaches of this kind are comparatively uncommon clearly illustrates how well the human economy is capable of adjusting itself to abnormal conditions, for many times do we find just such points of contact unaccompanied by any disturbance whatever. This form of headache does not occur in normal persons, but in those whose nervous systems are unstable. Neurologists tell us that reflex headache as a rule is a disturbance of an abnormal sensory nerve root, either springing from the posterior root of the spinal cord, or from the sensory roots of the fifth pair of nerves. Just what this abnormal condition is they do not know, as there seems to be no pathological change in the nerves themselves visible to the naked eye, or through the microscope. They merely assume that it is a vasomotor disturbance. As rhinologists we can throw no light upon this subject further than to state that in these sufferers there is a distinct tendency for the nervous element to predominate. The sufferers are, in my experience, highly strung nervous persons, females predominating. Their nasal cavities are extremely sensitive to touch, and diffi-

cult to anesthetize. This nasal abnormality would in the ordinary person cause only a slight discomfort, but in them a persistent headache.

The point of origin for most of these headaches is in the region of the middle turbinated body. This projection of the ethmoid bone into the cavity of the nose is an extremely important structure from a clinical standpoint. It is suspended from the roof of the nasal cavity in such a manner into the middle meatus as to leave a narrow space between itself and the septum on the inner side, and an equally narrow space between its outer surface and the outer nasal wall. This body frequently becomes hypertrophied or enlarged through polypoid degeneration, to such an extent as to completely fill the space between the septum and the outer nasal wall. When it encroaches upon the septum, it presses upon the sensitive nerves that supply this region as well as interfering with the normal ventilation and drainage of the middle meatus. When it encroaches upon the outer wall it interferes with the drainage from the frontal, ethmoidal and maxillary sinuses. Some one has recently called the middle turbinate the stopper for these three sinuses. It is the pressure of this unyielding hypertrophied body upon surrounding structures that causes headaches in these sensitive people. That this is true is susceptible of easy proof. An excision of the anterior portion of the turbinal body, or as much of it as is encroaching upon the surrounding structures, will give almost immediate relief.

The following case is typical of this class. Mrs. S., normal student, consulted me one year ago for unilateral headache upon right side, of long standing; pain most intense over brow and in occipital region; headache constant in the day time; eyes pained her a great deal; examination of eyes under hyoscine gave 1.50 cy 90 degrees over each eye. These glasses were given and worn for six months without bringing relief. I then examined her nose. Found the middle turbinate much enlarged, highly congested and extremely sensitive upon pressure. Each time the probe came in contact with it, she would complain of a pain radiating over the back of her head. The body was extremely difficult to anesthetize with a 10 per cent. solution of cocaine. I removed a large club-shaped anterior projection. The headache immediately disappeared, and with it the eye symptoms; and after six months there has been no return of either symptom. I could cite many similar cases with equally striking results.

Enlarged lower turbinals occasionally cause a similar trouble. Deviated septa sufficiently pronounced so as to crowd the turbinals will also produce headaches. Nasal polypi will have a like effect, but these headaches are not especially characteristic. They are unilateral and

neuralgic in type, involving the first and second division of the fifth nerve, and the great occipital, with resultant pain over the brow and in the occipital region. All the sinuses which are acutely and frequently diseased when of long standing, produce headache. Coakley, who has given Sinus Disease a very thorough study says in his recent work: "It may be taken for granted that a very large percentage of persons suffering from cold in the head accompanied by neuralgia are suffering from an acute inflammation in some of the accessory sinuses of the nose with retention of secretion in the accessory sinuses." I believe this statement to be true. Many cases of sinus disease are overlooked or referred to the oculist, who on his part fits the patient with glasses and wonders why he failed to obtain results. Patients suffering from neuralgia on one side of the face accompanied by a unilateral discharge from the nose should always be examined for sinus disease.

The severity of the symptoms in acute suppurating cases makes the diagnosis plain, but the chronic cases, with intermissions from pain followed after a cold with pain in the cheek or forehead around and back of the eye, or over the side of the head, back to the neck, are unmistakably of sinus origin. A careful study of the symptoms, the source of discharge, and transillumination of the face, usually trace the disease to the cavity involved. We often fail in establishing a diagnosis in these cases because the history of the case is incomplete.

There is often a series of symptoms given that are referable directly to the eye, such as pain in the eye and in the supraorbital region. Conjunctivities, increased flow of tears, fatigue of the eye, are extremely misleading symptoms and direct the observer's attention directly to the eye. By careful questioning, it will be found that the symptoms complained of occur only when the nasal disease has an exacerbation and the patient will tell you that every time he catches cold he has the symptoms mentioned above, together with a severe headache. Eye headaches are so common, and are so frequently relieved by correcting minute refractive errors, that there is a strong temptation upon finding a little astigmatism to give the patient a pair of glasses, and let him go at that. I do not mean to be understood as saying that eye strain will not be accompanied by similar symptoms, but the mere fact that all the symptoms are aggravated by a cold in the head point to the nasal cavity as the cause.

The third or obstructive headache is brought about by causes that obstruct the nasal passages, and interfere with nasal respiration. The most frequent factor in the production of this type of headache is adenoid vegetations in the vault of the pharynx. In the typical cases of this affection the deformity stands out so prominently, and the

whole circle of vicious symptoms vex the little patient so severely, that headache is complained of as only a minor symptom. But in the milder type where only a moderate amount of adenoid tissue is present, producing what is called "night mouth breathers," the symptoms are not so marked, and yet the child is robbed of sufficient air to cause a deterioration of his blood, producing anemia and a resulting headache therefrom. Many anemic children have frontal headaches from this cause which are very liable to be attributed to eye strain. A careful history of the case, together with an examination of the vault, will reveal the true nature of the trouble. Many of these cases might be classed as mixed nose and eye headache. They are dependent upon weakened ciliary and rotary muscles of the eye which have suffered with the whole system through loss of vitality brought about by the nasal obstruction. The headache may improve under glasses, but the proper treatment is to establish free nasal respiration and restore the lost vitality by chalybeates, out-door-life and good food. Nasal obstruction from enlarged turbinates or mucous polypi will cause similar headache to a very much less degree. It is bilateral and frontal, of a dull nature, worse upon rising and disappearing later in the day.

HEADACHE OF OTIC ORIGIN.*

BY HENRY B. HITZ, M.D.

MILWAUKEE.

In considering the symptom "headache", the specialist should seek to avoid the error of attributing every complaint of this character to some lesion in his own field of work, to the exclusion of the many far more probable causes, entirely beyond the scope of his special interest. By the term headache ("cephalalgia", Appleton) pain in the head is meant. Strictly speaking then, earache, pain in the ear, may be looked upon as a localized headache. In order then to avoid being misunderstood, "headache" is here defined as a pain of a dull, heavy, tormenting character, felt more or less generally throughout the head, with a focal point referred to some definite region, in contra distinction to the sharp lancinating pain directly referable to the middle ear and known as earache. This latter is especially marked in the beginning of acute inflammatory processes involving the lining of the external

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canal, the drum head, the cavity of the middle ear, and eustachian tube; and is sometimes a symptom of acute tonsillitis, tuberculous disease of the larynx, and carious conditions of the teeth. As a symptom, therefore, of acute functional disease of the auditory apparatus, headache occupies a very insignificant position; pain as defined above, or a marked sense of physical discomfort is present, in its stead.

Headache, on the other hand, in deep seated organic diseases of the temporal bone, is a symptom of considerable prominence, but not of a particularly reliable character, occurring as it does more or less frequently in cholesteatomata, and in caries in the attic, mastoid, or petrous portion of the temporal bone, and, though rarely, in adhesive conditions of the sound conducting apparatus. It also occurs to a much greater degree and perhaps with a much deeper significance, in those conditions directly arising from extension into the cranial cavity of an infective process in the temporal bone, *i. e.* sigmoid sinus thrombosis, epidural abscess, pachymeningitis, leptomeningitis and cerebellar abscess. Headache from any of the causes here enumerated, is generally referred more or less directly to the affected region; that is to say, if the condition giving rise to it, be located in the right temporal bone, the headache is referred to the affected side. If the disease be a carionecrotic process located in the mastoid apophysis or near the emissary vein, the focal point is invariably located in that immediate vicinity. If the disease be in the attic, in the zygomatic cells, or in the mastoid antrum the discomfort is as surely referred to the region above the auricle before or behind, as the case may be. Headache, however, occurring from disease in the temporal bone, is never, as far as I am aware present, unless accompanied by other well marked symptoms of disease in this region with generally a clear history of more or less prolonged disturbance of function in the corresponding auditory apparatus. It must not be supposed, however, that every case of organic disease of the ear is accompanied by headache. I have always assumed the headaches in these cases to be in the nature of "pressure headache", generally due to capillary engorgement, crowding of masses of granulation or the backing up of fluid products in the rigid thin-walled cellular spaces of a structure, not overly rich in sensitive nerve elements.

Should the headache referred to the side of the head in the region of the temporal bone be constant or intermittent, and accompanied by other evidence of disease in the ear,—such as constant or intermittent discharge of pus fetid or otherwise, deafness, noises in the head, disturbance of equilibrium and possibly some general manifestation, in

the nature of chilly sensations and fever,—the case should be put through a most thorough and searching examination of the ears. If the headache be more or less constant, and the functional disturbance in the ear ever so slight, a most careful and searching examination of this region as well as a general examination should be made to establish a cause. If the headache be more or less constant without any present manifestation of trouble in this region, but with a history of some previous affection of this organ, the examination should be none the less searching. The presence of an old perforation in the drum, an old scar or the presence of adhesions in the middle ear are usually significant, and a careful search may open up a lead hitherto unsuspected. The presence of granulation masses, polypi or fetid secretion even in small amount, are usually indicative of deeper seated ulceration in the middle ear or its adjoining cells, either in the nature of a carious process in the bone, or of a cholesteatomatous mass, either of which, even in small quantity is a constant menace to the health of the individual.

Now as to the examination necessary. It should consist of a careful inspection of the external ear, mastoid and whole temporal region on the affected and on the opposite side, both ocular and tactile. Then a careful inspection of the drums on each side, if present, and if not, a careful inspection of the cavity of the middle ear; and then of the nose and naso-pharynx particularly, as being a part of the organ of hearing from a pathological standpoint. After this a functional test of hearing should be made by means of the voice, watch, acoumeter, tuning fork, galton whistle, and the various other methods observed by the present day otologist. The history of the individual, past and present, should be obtained, and a thorough general physical examination made. Examination of the other special sense organs is essential, particularly with reference to the eye grounds and pupillary reflexes. By a thorough examination of this character a very substantial approach to a diagnosis should be made as to the possibility of the headache being of otic origin. If in this examination it should develop that the individual is possibly suffering from intra-cranial involvement, resulting from an extension of the infection from the temporal bone into the cranial cavity, this will be shown by the character of the temperature, disturbances of equilibrium, choked disc, pupillary inequality, Kernig's sign, etc. A more thorough discussion of the intra-cranial complications at this time would hardly seem within scope of the title given me.

As regards the treatment of headache of otic origin it may be said to be largely of a surgical character. If due to some of the less serious

conditions it may readily be reached through the external canal, as for example the removal of granulation masses, carious ossicles, small cholesteatomata in the attic and the separation of scars or adhesions. If of a more severe type the most radical treatment is generally the most conservative, and this should be resorted to with the least possible delay. With a considerable experience in the treatment of this class of cases I am absolutely convinced of the value of early, thorough radical procedure. Less than this would be futile. In closing I may say that headache from disease in the region under discussion has not been of great importance in my mind excepting as a means rather of attracting attention to the affected region.

DISCUSSION.

DR. L. F. BENNETT of Beloit:—This is a very interesting subject to me and I cannot help but make a few remarks upon it. My principal contention is that headache is simply a symptom and should be looked upon as such, and should be dropped from our nomenclature as a distinct disease or condition, just as we have dropped dropsy and fever and any other symptom which accompanies almost every disease in the field of medicine.

In considering this subject we must be careful in looking for these causes, to distinguish between accompanying conditions and the real cause. For instance, if you find a person with a headache and a little astigmatism you must not conclude at once that the astigmatism is the sole cause of the headache. Or, if you find a deviated septum in a case of headache you must not conclude that it is the cause of the headache; no more than if you find a displaced uterus, or a little laceration of the cervix or uterine disturbance, you should at once conclude that that is the cause. Many of them may produce it. Headache is produced by a great many causes, and our duty in each case is to find out what is the cause in the individual case. The tendency has been for the oculist to attribute a great many cases to the eye, for the rhinologist to attribute too many cases of headache to the nose, and the gynecologist to attribute many to the pelvic organs. The general practitioner must be very careful in making up his mind in these cases, as to the exact cause.

Of course, if you find a deviated septum it is well to take your case to the nose specialist and have it corrected; if there is an error in the eye, that should also be corrected; so should any pelvic irritation; but my main contention is that headache is simply a symptom and should be regarded as such, and the cause should be carefully looked after. It requires a great deal of judgment and discrimination to determine the true cause, or combination of causes producing headache. Nervous disturbances, accompanied by eye irritation, nose irritation, autointoxication or a bad condition of the kidneys with insufficient elimination, or a combination of any or all of these or other conditions, is often a causative factor; and it requires careful discrimination to determine the exact cause in any individual case.

DR. J. M. DODD of Ashland:—The subject has been pretty well covered and

anything that I might say would be practically a repetition of what has already been said.

If there is one point that I would like to emphasize in addition to what has already been said on the subject, it is the importance of making a diagnosis,—not treating a headache as a headache, but a symptom of some disturbance that may occur in a remote part of the body. I think if we do that and go about a diagnosis by exclusion, we will usually be able to determine what the cause of it is and to treat the condition intelligently.

This of course, is a very important subject, and it is a symptom that comes to us for relief perhaps more often than any other one we meet with; and it is certainly a distressing malady and one often very intractable to manage, but there are certain conditions that usually govern it, and if those can be corrected, and they usually can, we can relieve the headache. I will not take your time further. I believe the subject has been very well covered by those who have preceded me.

DR. H. B. HITZ (in conclusion):—I have not very much to add, except that there is no question but that nasal conditions are often responsible for headaches. My idea is that such headaches, if not always so, are generally due to pressure, whether it be in acute sinusitis, or whether it be from the pressure of enormous hypertrophies, or the presence of polypoid conditions.

Headaches of a neurotic type are seldom due to nasal conditions; yet the correction of nasal disturbances, whatever they may be, often brings an immense amount of relief. I have often seen it demonstrated, and I believe every other person working in this line of work has had the same experience. Yet I have seen treatment fail in many cases, and as I grow older, grow more cautious in my prognosis of nasal headache.

Of course we all see acute cases of sinusitis accompanying, for example, "La Grippe" which spontaneously relieve themselves, usually in two or three days, requiring no operative interference; yet in others operative interference is imperative.

The special field for operation however is found in the *chronic* cases of sinusitis, and in these cases operations generally accomplish a great deal of good.

Just one more word and that is in regard to the classification Dr. Conkey has given us. I hardly agree with him in this classification. It seems to me the headaches are due to what might be called toxic or circulatory conditions, and to direct pressure from crowding masses of either fluid or solid structure in the nose and accessory cavities.

VENEREAL DISEASES AND MARRIAGE.*

BY D. J. HAYES, M.D.

MILWAUKEE.

No one can truthfully deny that a careful study of syphilis is of prime importance to every medical man, whether he devotes his work to general practice, to surgery, to neurology, to dermatology or to ophthalmology.

It is of special interest to the oculist, as from sixty to seventy per cent. of all the unfortunate blind of this earth are due either to syphilitic lesions of the eye or to gonorrheal ophthalmia. Every honest man must feel the great responsibility that rests upon him when a patient with syphilitic antecedents consults him relative to matrimony. A man with syphilitic antecedents becomes dangerous in matrimony in two ways; first, in regard to his wife and prospective children, and second, the personal risk of the prospective husband, which may seriously compromise his health and incapacitate him for the responsible position as the head and material support of the family. This second danger is often overlooked by the physician who considers only the infection of the wife and prospective children; but it is to be observed when syphilis is no longer contagious or transmissible by heredity, that tertiary lesions of a severe type may affect the eye, the spinal cord or the brain and may end in speedy death or leave the patient with his health so compromised that he is unable to be the bread winner for the family.

To illustrate this point I will give you a brief history of a man who came under my own observation. He did not consider it worth while to take treatment unless active symptoms were present, such as ulcerated lesions of the mouth and tongue. Six years later he married without consulting a physician. Two healthy children were born. So fas as could be learned he did not communicate syphilis to his wife. Three years after his marriage tertiary lesions of a destructive character took place which ate away the bony structures of the nasal cavity and soft palate. He went to Hot Springs, Arkansas, and after six weeks treatment considered himself cured. One year after his return he was taken with exostosis of the cranium and severe neuralgia of the scalp, which finally ended in absolute paralysis of the lower extremities, and weakness of intellect. His wife, two children and himself are dependent upon his father-in-law for support.

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This, with similar cases that might be quoted, reminds us of the words of Fournier, when he asks, "Is it admissible, is it right, is it moral that a man should dream of having a wife and children when he offers the possible prospect of widowhood to his wife, of orphanage to his children, of poverty to his family?"

It is not supposed that laymen should know all the dangers they are exposed to from syphilis imperfectly treated or not treated at all. But it is expected that a physician should know and point out the dangers to them, when they come to consult him relative to marriage.

The prognosis of syphilis from the view-point of its infective risk to the wife, must be based upon the determination of the duration of its contagious and transmissible period. There is no scientific or accurate test for determining the date of the extinction of the virulent principles of syphilis in the human body. Our knowledge on this point is based chiefly upon the results of clinical observations. No fact is better established than this: that when syphilis is recent and active, conjugal contamination is practically certain. Clinical observation further shows that the contagious activity of syphilis is gradually and finally extinguished by time and specific treatment. The time limit does not admit of exact mathematical calculations, as it varies in different cases.

Fournier in his valuable work on syphilis and marriage, has a certain program to be fulfilled by those who have had syphilitic antecedents before they aspire to marriage: (1) absence of specific lesions; (2) advanced age of the diathesis; (3) a period of absolute immunity following the last specific manifestations; (4) non-threatening character of the disease; (5) sufficient specific treatment.

If the patient satisfies all these combined conditions he considers him fit to become a husband and father without danger. The first obligation, absence of specific lesions will arouse no dispute, as all will agree that there should be no specific lesions present at the time of marriage. Every physician who has had much experience, knows that the enormous majority of husbands who communicate syphilis to their wives and prospective children are those who have entered marriage with syphilis still young—say one or two years, more rarely three or four years. On the contrary, much more rare are those cases in which the infection of the wife takes place when the husband's syphilis is old, —say five or six years. Hence we can conclude that the two great points necessary to a favorable prognosis in syphilis, relative to marriage and heredity, are time and treatment. So far as my personal opinion goes, I believe a syphilitic subject has not the right to marry unless his disease dates back a certain duration of time—say four or five

years as a minimum, and all this time has been devoted to the careful and scientific treatment of the disease. Five years in my opinion is not too long when there are such important interests at stake.

Fournier insists that there should be a prolonged period of immunity from syphilitic lesions previous to contracting marriage, and he never allows a patient to marry who has had the slightest specific manifestations, until eighteen months have passed since the last specific manifestation, and that too, without any specific treatment.

The most dreaded accident that can befall a syphilitic subject is cerebral syphilis. M. De Chambres says; "Every specific manifestation towards the brain constitutes an almost express interdiction to marriage by reason of the future consequence to which it leaves the patient exposed." For my part I would most energetically dissuade from all designs of marriage, any man who, even though cured of his syphilis, had disclosed to me undoubted evidence of specific encephalopathy in his past history, such as epileptiform attacks, apoplectiform strokes, hemiplegia, mental affections, etc. Such accidents are in my opinion absolutely incompatible with marriage. I will not even discuss the supposition of a possible marriage under these conditions.

To illustrate the menace which a syphilitic may become to his family, I will cite a case.

A young traveling man consulted me, who was suffering with a mild iritis, some paralysis of the muscles of the eye, with embarrassment of the use of his tongue, stammering, and a difficulty in finding and articulating words. By vigorous use of specific treatment the symptoms gradually disappeared. One year afterwards he consulted me regarding his contemplated marriage. I advised him not to take such a step. He married, and six months after his nuptials was taken with violent cephalalgia which ended in left hemiplegia, psychic troubles, etc. The real cause of the trouble was not at first apprehended. I saw him three months afterward,—left arm and left leg paralyzed and intellect enfeebled. Active medication failed to relieve his unfortunate condition. To-day he has a wife and an aged and decrepit mother who are in absolute destitution, depending upon him for support.

This is only one of the many cases that might be cited to illustrate that the first assault of the disease on the brain may be recovered from by early and energetic treatment, but that recurrences are so common that they constitute the rule.

By far the most potent cause of tertiary syphilis is insufficiency of specific treatment in the secondary stage of the disease.

It can now be almost positively stated that the germ of syphilis has at last been discovered, viz: the spirochaete pallida. It is to be hoped that in the near future we can positively determine when the

contagion of syphilis is extinct, by the microscope, and that the days of groping in the dark depending upon the uncertainty of clinical observation will be forever past.

Every one present to-day will agree with me when I state that a man, who marries with a gonorrhea still infectious, will give the disease to his innocent wife with absolute certainty, and from that day on to the end of her life she may not enjoy a day's health, and will perhaps be a permanent invalid, suffering with endometritis, metritis, oophoritis, salpingitis and peritonitis. In fact the whole pelvic organs may be bound together in one mass, a condition which the most skilled gynecologist will be unable entirely to relieve. Without going into details, I will state that Professor Ultzmann years ago laid down the following conditions that should be fulfilled by one who had gonorrhea before entering matrimony: (1) absence of gonococci; (2) absence of pus corpuscles in the urine: (3) absence of peri-urethral complications.

Those conditions have since been accepted by more recent observers such as Brewer, Janet, Finger and Keyes. The second condition, absence of pus corpuscles, I must especially emphasize. The presence of pus corpuscles in the urine is always an indication that the inflammation has not subsided.

It is possible that the inflammation still continues and is dangerous, notwithstanding the disappearance of the gonococci, the original etiological factor. After many negative findings the gonococci may suddenly appear. It is dangerous in practice to pronounce a case free from infection which under examination by the microscope has shown negative results, as I have frequently found the gonococci to suddenly re-appear, particularly if some irritant injection has been used, such as a five per cent. solution of silver nitrate. Again, a urethral follicle may rupture into the urethra, because of some mechanical irritation, such as that resulting from the passing of a sound or by coitus, and cause reinfection, which is not only dangerous to the patient but to others. Urethral folliculitis is one of the most insidious and important conditions that occur in gonorrhea so far as latent infection is concerned. The gonococci and mixed infection are sealed up in the follicle. The patient may be apparently well and the urine free and clear from mucus and pus for some time.

The old test of the injection of a strong solution of silver nitrate may fail to produce any discharge when coitus will cause a reinfection. A suspicion may arise in the mind of the individual that he is suffering from fresh infection from an innocent person. It is unwise and impossible to give a dogmatic opinion in such cases and the only safe course to be pursued is to insist on time limit.

Regarding peri-urethral complications, about forty per cent of all gonorrheas affect the prostate more or less severely. This is manifested in the chronic stage by irritability of the bladder, heat in the region of the rectum, etc., and neuroses of the sexual system of the worst type. If the prostate is now massaged the secretion that is expressed contains pus cells and sometimes staphylococci and often gonococci. This condition is often extremely difficult to cure and I have frequently seen such patients contemplate suicide.

Marriage is not admissible for two reasons: First,—It is difficult to decide when infection ceases. Second,—On account of the neurosis of the sexual system which renders a man unfit to fulfill his conjugal relation and be the material support of the family.

Peri-urethral phlegmons and extensions of the gonorrheal process to the seminal vesicles requires the same precautions as the other peri-urethral complications mentioned. At the present time the laboratory workers are given undue prominence and are inclined to assume an attitude which is arbitrary in the face of the admitted clinical confusion.

If the problem is ever to be solved with mathematical precision, it must be done by combined efforts of both clinical and laboratory workers. In conclusion I will say that in these cases the physician is the guardian of the destinies of his people and should be as cautious in assuming responsibility in advising gonorrhoics in the matter of matrimony, as he should be in advising syphilitics under similar circumstances.

DISCUSSION.

DR. HERMAN REINEKING of Milwaukee:—I was not aware of the fact that I was expected to open this discussion until a few minutes ago, when, after the doctor began reading the paper, I glanced at the program. So I have made no preparation.

I do not know that a great deal of discussion is necessary. The paper is very complete in itself, and it touches one of the most important subjects that could possibly be brought before this or any other medical society. If only the subject could be brought to the minds of the young people who are contemplating marriage, it would certainly be a great blessing. No one who has had any experience at all has failed to see just such cases as the doctor has mentioned in his paper, and there certainly devolves upon the physician a great and important duty, not only when he is actually consulted on the questions of the advisability of marriage, but whenever the case comes to him for treatment, whether the person contemplates marriage at the time or not. We should make it a rule to warn persons afflicted with such diseases at first consultation, and tell them not to think of marriage until they are sure that they are thoroughly cured of this disease. I have done this of late

years, especially since I heard the doctor read a paper on a similar subject on a previous occasion.

Of the evils which the doctor mentioned consequent upon venereal diseases, especially gonorrhea, there is one which I consider very important, *viz.*: puerperal infection. Many cases for which we cannot otherwise account, may be explained in this way. We have a case in which we have done everything we could do, where the surroundings have been favorable, the nursing good, and we are sure that we have observed all the rules of asepsis; and still a case will occasionally, under such circumstances, develop puerperal pyemia or sepsis. Most of those cases, I am fairly convinced, are due to previous gonorrheal infection.

The hope expressed by the doctor, that in the future we shall be able to determine the advisability of marriage by microscopic examination, by looking for the spirochaete, is, I am afraid, utopian, as I understand that the spirochaete is not very easy to find after treatment has been carried out for some length of time; whereas tertiary lesions might be present although the spirochaete is no longer found in the blood or tissues.

DR. HAYES:—I would like to call on Dr. Caples. He has had experience in treating spinal and nervous troubles due to syphilis.

DR. B. M. CAPLES of Waukesha:—I do not believe that I can add much to what Dr. Hayes has said, except by way of emphasis. I have had very little experience in treating any primary lesion of this sort, but I do have many of these cases in the later stages, and Dr. Hayes has touched upon this part of the subject. The inability of the individual to become the father of healthy children as well as the inability to support his family when he has one, are very apparent. Dr. Hayes limits the time in which a syphilitic should marry to five years. I would make it not less than twenty-five. In fact any man who contracts syphilis ought never to be permitted to marry. I would go so far as to say that every man suffering from this disease should be sterilized. I am forced to this conclusion because I see so many cases of cerebral and spinal syphilis, where after marriage the individual has become entirely incapacitated, leaving a wife and in many cases degenerate and half-imbecile children for the community to support. As to gonorrhea there is nothing to add to what Dr. Hayes has said. We all know too much about it and its unfortunate results.

DR. HAYES (closing):—The only thing that I will add to what I have said, is that I think physicians as a rule are very delinquent in cases of gonorrhea. A great many men consider that infection is past as soon as urethral discharge ceases. Now, a case may dip down into the glandular tree and into the prostate and the seminal vesicles, and require the most thorough bacteriologic and clinical examination before marriage should be permitted. Only a few weeks ago was I reminded of a case. A young man was treated by me for gonorrhea, and he considered himself cured after two or three months, and got married, and the physician who was associated with me took care of his wife in her confinement. Three days after confinement the baby was taken with gonorrheal ophthalmia. They were poor people and they had to secure an oculist, and by energetic treatment he saved the eyes. The woman had the worst kind of septicemia; her temperature rose to 106 degrees.

Gonorrhœa cuts a great figure, I think, in puerperal septicemia, and even after it has become latent I believe the gonorrheal infection gets into the tubes and years afterwards causes trouble.

Paraffin Injection Treatment of Inguinal Hernia. M. L. HARRIS, Chicago, (*Journal, A. M. A.*, October 19), gives the histories of three patients with inguinal hernia that had been treated by means of paraffin injection at so-called medical institutes and who applied to him for relief from the pain and discomfort caused by the hard masses of paraffin in the inguinal region. They did not help the hernia any, as the sac protruded internally or externally to them. Complete relief was obtained by their removal and the conclusion of the operation in the usual way. Besides the pain and discomfort, the inflammatory thickening which may occur around such masses renders an operation for the cure of hernia more difficult, jeopardizes rapid and firm union and, consequently, the permanency of the result.

Carbon Dioxid Snow for Skin Lesions. W. A. PUSEY, Chicago (*Journal A. M. A.*, October 19), calls attention to the use of frozen carbon dioxid for the destruction of lesions of the skin or for producing a violent inflammatory reaction in such lesions. He reports two cases of extensive hairy nevus, one of them illustrated, treated by this method with striking results, and one of erythematous lupus apparently completely cured. He has also treated several cases of vascular nevus by this method with success. In cavernous nevi he believes it would succeed only in selected cases. In lupus vulgaris it is ineffective, and the same is perhaps true of epithelioma. This method furnishes a convenient and effective treatment of warts, calluses, senile keratoses and other such lesions. Carbon dioxid in the liquid form can be obtained in the drums in which it is sold to druggists, and as it escapes from the cylinder it is collected on cloth or chamois skin in the form of a fine show. This can be compressed and shaped as desired. Its effects depend on the pressure with which it is applied and the duration of the application. By regulating these its destructive action is controllable and can be accurately gauged. With strong pressure, he thinks, freezing to a depth of from one-eighth to one-sixth of an inch can be produced in a few seconds. As a rule, he employs just enough pressure to hold the snow firmly against the skin, but varies this sometimes according to the effect desired. Applications of from five to ten seconds are sufficient to remove thin layers of pigment from the skin or when an inflammatory reaction is desired for therapeutic purposes, as in erythematous lupus. In practice, Pusey finds applications of from ten to thirty seconds most satisfactory, they can be gauged accurately and there is almost no scarring. With longer applications there is a slight amount of white scar, due to destruction of the capillaries. If prompt action is desired and moderate scarring makes no difference, a vigorous prolonged single application can be made and the work done at once. If deep destructive action is wanted the application can be repeated on successive days or at longer intervals. Otherwise the application of the snow should not be repeated till the effect of the previous application has disappeared.

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EDITORIAL COMMENT.

SEXUAL INSTRUCTION FOR BOYS.

There are innumerable sincere, conscientious women for whom the *Ladies' Home Journal* is the final arbiter of every conceivable question. So when Dr. G. Stanley Hall selects this vehicle for his thoughts, authenticating them with his portrait and a fac simile of his signature, the less gifted or renowned should be prepared to hang breathless on the lips of wisdom. But Dr. Hall seems to have come upon a very vicious and a very precocious part of the world. His subject—in the September *Journal*—is "How and When to be Frank with Boys." Dr. Hall's fear is that the boy may be brought to self abuse or sexual vice through ignorance of its wickedness, and therefore Dr. Hall would let no chance escape to forestall the evil. What simpler

than to begin education as to sex at the earliest age? Dr. Hall opens with the thesis that there is a "sad percentage of early private vice" and that "reliable statistics" "show that a majority of boys, at least at some period of their lives, have experimented with themselves." He deduces that "trousers should bifurcate low down "and be pocketless, and that washing must be restricted, for "excessive cleanliness in young children is over-refinement that tends to bad forms of precocity." As to education, he instructs that "the curve of curiosity in boys as to the mystery of birth reaches a high point at from seven to nine years of age," and that "when this desire for knowledge is actually awakened," it should be met by an explanation "in plain words, how the unborn child rests and is cared for in his mother's body," and "how it grows there and is brought forth in pain." Curiosity about the father's part should be satisfied at the age of ten or twelve. Expansion and extension of this early education is provided for the subsequent years, including "as the lad grows to manhood" instruction as to the dangers of venereal disease.

Startling discoveries and revolutionary conclusions are just now the favorite signposts to reform. But Dr. Hall's learning and standing negative sensationalism and guarantee sincerity. None the less it is difficult to imagine where his statistics can have been collected. The moral tone of the community, the vigor of our people in town and country, corroborate the general impression that it is only a very small minority of boys who are guilty of self abuse—at least to any harmful extent. Vast numbers of small boys bathe in our brooks and rivers, or tub with regularity, without a suggestion of sex or the slightest physical impropriety. Why should the bathing towel carry greater daily danger to the boy than to the man?

But where can Dr. Hall have met his boys of seven to nine? The lads of seven that we know are still children, blissfully unconscious that they have an anatomy, not yet schooled to comprehend the simplest physiology, much less the complex story of embryonic life. No doubt the faithful stork cannot maintain enduring reverence; but the child's mind is not always intent on problems, and we have found many a boy past twelve still content with the theory of the physician as the discoverer of his little brother.

The true answer for Dr. Hall is that his evil is largely imaginary. A few of our boys are depraved young; but the majority do not come of parents who are apt to know of Dr. Hall's doctrines. The great majority of our boys are vigorous and active, fond of games of strength and skill. Decided sexual consciousness rarely comes until later

high school days; and then is the time for instruction. It is the youth of fifteen or sixteen and not the child of seven or nine that needs education in these problems. To him the father can give explanations and sound warnings; and he can exert his influence for a clean life. Above all the father owes the duty to make vivid to his son the dangers of venereal disease—to let him know in time the burden of sin even unto the tenth generation.

THE MILWAUKEE COUNTY HOSPITAL.

"A public office is a public trust" to some men; to others it is a plaything to be bandied about, a commodity with which to pay a political or personal debt, or to secure preferment of private interests. From well founded rumors we believe that Milwaukee County is to be treated to a shining spectacle of just this sort of thing in the matter of our county institutions, and we here enter an emphatic protest against such perversion of the public's interests, more especially as affecting the management of the Milwaukee County Hospital.

Under the new law this institution for the past two years has been under the control of a board of five trustees, who appointed Dr. John W. Coon, as Superintendent of the County Hospital. Under this regime such vast and lasting improvements in the hospital have been made that it has become one of the best conducted institutions of its kind in the entire country. It was possible through the creditable work of Dr. Grosskopf in the previous administration, although hampered by a board of forty supervisors who never agreed, to make sufficient change in the character of the institution to convert it from an adjunct to the almshouse to its proper sphere of a place for the care of the indigent sick of the county. The present board and superintendent, unhampered by the political board of supervisors, were enabled to go farther than this and have made a real hospital of the institution—one of which the county may well be proud. They abolished numerous abuses with a firm hand, established a good system of nursing and interneship, provided an economical, because careful and honest administration of its affairs, and added largely to the equipment and buildings. Dr. Coon's term of service has been exemplary in every respect; with the best interests of the hospital and its patients always foremost, he has given a wise and just administration, in which he may deservedly take pride. Through his efforts and by the aid of the Board of Trustees the hospital has been raised from a third rate institution to the level of the best in the land, and the con-

templated additions and further changes will establish it as a model of its kind. Dr. Coon's masterly work has been recognized by the American Hospital Association, which, at its recent meeting in Chicago, elected him as Chairman of its executive committee.

And what is the result of such faithful performance in public office? No adverse criticisms are offered. Nevertheless we are told that a change is wanted by some; that a quiet, underground cabal has been formed to secure the appointment as superintendent of some one who can be handled to advantage by those who resent the firm stand taken by Dr. Coon and the trustees in the matter of who shall and who shall not run the hospital.

Such is the information that comes to us through the public press and investigation proves it to have some foundation in fact. We are, however, loath to believe that the removal of Dr. Coon can be accomplished at this time. We believe the majority of men to be honest and fair-minded; we believe the present Board of Trustees of the County Institutions to be particularly so. Moreover, their excellent work in the past two years has shown that they have the interests of the county institutions uppermost in their minds and we shall be greatly surprised if they take a step backward at this time and again precipitate the county hospital into the mire of politics. The "quiet influences" now at work to undermine the excellent administration of Dr. Coon have been up to similar tricks before this and have been caught at them, and so we believe that their underhanded political work is not apt to fool the present Board of Trustees to the extent of leading them into the colossal blunder of changing the administration of the county hospital.

The care of the sick poor is the last thing that should be influenced by political considerations. There is no room for politics here. Surely Milwaukee has learned this lesson from her experiences in the past, and learned it at the cost of many thousands of dollars and much needless suffering. Let us have no more of it, at least not at the County Hospital.

WORK OF THE STATE BOARD OF HEALTH.

The twentieth report of the State Board of Health, covering the period of the two years ending September 30, 1904, has just appeared. The report forms a volume of nearly 500 pages and contains: 1. Investigations of cases of contagious diseases, with tabulation by counties. 2. Lists of the various health officers of the state, with summarized

reports of each. 3. Examination of Water Supplies and Sewerage disposal. 4. Report of the Department of Vital Statistics comprising over 300 pages of printed tables, etc. 5. Report of the State Hygienic Laboratory.

It is gratifying to learn that so important a field as that of vital statistics is now being so efficiently conducted. The mass of details is being arranged in an orderly and accessible manner and if lacking in any one particular, to the indifference of local authorities and not the department, is the blame to be charged. Without doubt the better enforcement of the law recently enacted providing for registration of births, deaths, marriages and accidents will gradually be accomplished and our vital statistics will then take an increased value.

The report of the State Hygienic Laboratory from October 1, 1903, to July 1, 1904, is included in the report and describes the organization and object of the laboratory; directions for collection and shipment of samples; and a summary of the work done during the ten months of its existence.

As a laboratory has been established for the purpose of aiding the State Board of Health and local health officials in the accurate diagnosis of the cause of various contagious diseases, its scope is somewhat restricted. We are of the opinion that a rather larger appropriation should be asked from the coming legislature, and that the laboratory should be open to all medical practitioners of the state. Obviously for a physician in a country district to be obliged to call a health officer from a neighboring town or to be compelled to send specimens through him, would in certain cases, notably diphtheria, involve loss of valuable time. From the standpoint of the health official a negative finding in diphtheria may mean more than to the clinician. Every physician of experience has seen cases reported negatively by the bacteriologist on first examination and positive in subsequent ones. In a large number of cases the careful physician uses his antitoxin before the laboratory report is returned, and yet he wishes that report, both to justify his use of the serum and to show the necessity of its repetition in the graver cases. Therefore the value of the test is two fold: 1. In determining the necessity of the use of antitoxin. 2. In the establishment of quarantine.

The two are of equal importance, but the welfare of the patient should be considered equal to that of the family and of the community, if possible, and the physician in the country should without delay receive the advantage of free laboratory facilities in his diagnosis of

tuberculosis, diphtheria and typhoid cases, now enjoyed by practitioners in all the larger cities and in not a few states where state laboratories exist.

TUBERCULOSIS AND THE PHIPPS INSTITUTE.

The third annual report of the Henry Phipps Institute of Philadelphia which recently appeared, contains an account of the work carried on during the year from February 1, 1905, to February 1, 1906. It gives a continuation of the study of results of the use of the Maragliano serum, a statistical study of the influence of the Phipps Institute upon the death-rate from tuberculosis in Philadelphia, and a report of some of the scientific work done by members of the staff of the institute during the year. The value of the work being done in Philadelphia where so large a number of cases is treated, must in a few years be immense, both from the standpoint of scientific study of the disease in its clinical and pathological aspect as well as an immediate influence in checking its ravages among the people of the city and state. During the year covered by this report, 1,251 cases received treatment and during the three years of the institute's existence 3,886 cases have been cared for. As to result of treatment in the dispensary and hospital the report states that gain in weight is accepted the world over as an indication of improvement and progress toward recovery; that it indicates recovery from the disease in a strictly technical sense may be questioned. Advanced cases may be made to gain weight for a time with no permanent arrest of the disease process. If in addition to an increase of physical well-being a diminution or disappearance of the physical signs with disappearance of the bacilli can be brought about, the disease can be said to be arrested or cured. By the sanatorium treatment a very large proportion of early cases may be practically cured, but in proportion to the whole number of cases sanatoria can never suffice and the dispensary and home treatment must supplement these institutions. The Phipps Institute has succeeded in bringing about improvement in 50 per cent. of its cases *without* sanatorium treatment, and in reducing the death rate in the remainder. This work is done among those having to cope with the vicissitudes of poverty, so we may hope for still better statistics among those more favored by fortune. Each large city should make provision for dispensary treatment of the tuberculous poor on as large a scale as possible, supplementing this with supervision of the home treatment and prophylaxis by an adequate visiting nurse system; and also

provide sanatoria for as many early cases as possible. Only in this manner can an effective fight be made against tuberculosis. We hope the influence begun by the Phipps Institute will be far reaching.

PROPRIETARY REMEDIES IN THE KAISER'S DOMAIN.

In Germany the patent medicine business is being regulated in a fashion that must prove highly "inconvenient" to the fakirs of quack remedies and "cure alls" of fraudulent or bogus pretensions. Four years ago a law was enacted compelling manufacturers of patent medicines to state on each package what ingredients the medicine contained and in what quantities. This simple requirement was naturally a fatal blow to the success of many a blooming product of the nostrum mill, and now another statute still more stringent has been enacted and has received the imperial approval—indeed, it is said the Emperor has personally initiated and carried through these measures.

As the following extract from one of the "Fontenoy" letters in the *Chicago Tribune* indicates—stating that his majesty Wilhelm II "has now affixed his sign manual to a new statute, for the initiation and drafting of which he is almost entirely responsible, which prohibits the public advertisement of patent medicines and forbids the use of any printed or written statement in praise of the article or compound, as well as of any testimonial or recommendation or anything in the nature of an advertisement or an inducement to buy.

Chemists and all retailers are required to know the ingredients of patent medicines except when they sell them on a doctor's order and prescription. Failing this, they are not only liable to punishment by the law if they sell patent medicines, but are also responsible in civil damages for any injury that may be caused by the remedy.

Inasmuch as the new law imposes severe penalties in the shape of withdrawal of licenses, confiscation, fine, and imprisonment upon offenders, it looks much as if the patent medicine industry and trade is at an end as far as Germany is concerned, while the Teuton press loses a large source of revenue derived from the advertisements of the nostrums in question."

One can but think a little benevolent tyranny of this kind would be a good thing for this our land of the free (fakir) and home of the brave—exploiter of human infirmities. For although a beginning has been made in legislating for pure foods and medicines in the United States, still much remains to be done especially in suppressing false and fraudulent advertisements and testimonials, which are so flaunted in the faces of all who walk the streets or read the papers, as to indicate a willingness to be humbugged on the part of the masses of our people.

NEWS ITEMS AND PERSONALS.

Dr. Clarence E. Barber, formerly of Warren, Wis., died early in September, at Salt Lake City, Utah.

Dr. Spencer R. Stone of Rhinelander was married on Sept. 30, to Miss Ella May McKenzie of Chicago.

Dr. J. B. Gordon of Shawano has been appointed pension examining surgeon, vice Dr. H. W. Partlow, resigned.

Dr. A. Bernhard of Milwaukee sustained fractures of the left clavicle and several ribs in a recent accident while driving.

Dr. Charles R. Bardeen has been elected to the position of Dean of the Medical Department of the University of Wisconsin.

Dr. Charles Zimmermann of Milwaukee, while spending his vacation in British Columbia early in September was thrown from a wagon and fractured his left clavicle.

Mt. Sinai Hospital of Milwaukee has completed a new addition, which doubles its capacity, and made improvements in the old portion of the hospital at a cost of $7,000.

Dr. Joseph F. Stillman of Walworth, a graduate of the College of Medicine, Syracuse University, New York in 1855, died at his home on Sept. 17, from cerebral hemorrhage, aged 75.

Dr. George K. Noyes of Milwaukee died on Oct. 2nd from pneumonia following upon typhoid fever. Dr. Noyes was 36 years old, and a well-known practitioner of Milwaukee. He attended the University of Baltimore, Rush Medical College and Jefferson Medical College in Philadelphia and took a post-graduate course at Columbia.

The Wisconsin College of Physicians and Surgeons held its opening exercises on the evening of Oct. 1st. The number of students enrolled is double that of last year. Dr. Frank Darling, professor of bacteriology, delivered the opening address. Several additions to the faculty have been made: Dr. Armor Fletcher of Buffalo, is Professor of Genito-Urinary Surgery, and Dr. A. N. Baer occupies the chair of Electro-therapeutics.

Dr. Richard Schorse of Milwaukee, a prominent young physician, died on Sept. 18th of pneumonia. Dr. Schorse was born in Milwaukee on Sept. 7, 1878 and attended the High School and German-English Academy. He received his medical education at the University of Pennsylvania, graduating in 1902, and served a 2 year term as interne at the University Hospital and Orthopedic Hospital in Philadelphia, after which he entered into practice in Milwaukee.

The Milwaukee Medical College, now the Medical, Dental and Pharmaceutical Departments of Marquette University, held its opening exercises Oct. 1st. The opening address was delivered by Prof. Brundage, the newly appointed professor of physiology, who spoke of the advantages of a university education. Other speakers were Father Burrows, Dr. W. H. Earles, Dr. H. L. Banzhaf, Dr. E. W. Sommer and Dr. W. C. F. Witte. The college will have about 175 more pupils than attended last year.

Dr. H. M. Beck of Green Bay died Sept. 20, aged 52, from the effects of cancer of the stomach. Dr. Beck was born in Bavaria in 1855 and received his preliminary education in the schools there. He later attended the Polytechnic High School at Munich and came to Green Bay in 1876, where he was engaged in the drug business for a few years. He was graduated from Rush Medical College in 1883. Dr. Beck was district surgeon for the old Milwaukee & Northern road, subsequently known as the Chicago, Milwaukee & St. Paul road, for twenty-five years, and served as a member of the United States board of pension examiners. He was a member of the board of education for two years and a county commissioner for a like time.

CORRESPONDENCE.

THE PHYSICIAN AS ACCUSER.

The medical profession must not be divided. The members must work for a common interest. Every member must not look at little things which seem wrong and maybe are wrong and unethical until they seem large and larger.

We must show by good example that we are trying to do right and many times the unethical man will follow in our footsteps. This is hard to do at times when we think an injustice has been done us. All differences of opinion and unethical acts should be whipped out at close range, in the County Society meetings, and after whipping them out a new life exists between the members.

If a man does a gross premeditated unethical act, we should not sustain him in court or anywhere else, but even then we should not try to scatter such news for it is not good for the profession.

Medicine is not an exact science and sometimes many good opinions can be rendered on the same subject and no two coincide. Sometimes a man may err from lack of knowledge—this is the fault of poor medical colleges.

We must strive to place our medical colleges on a higher plane and our medical morals on a similar plane.

I believe as long as we have medical men we shall have some black sheep but we must dye them until they are white.

W. S. WING, Oconomowoc.

October 14, 1907.

A VIENNA LETTER.

BY RALPH ELMERGREEN, M. D.

MILWAUKEE.

(Contributed to the JOURNAL, *at the request of its Editor.)*

Editor WISCONSIN MEDICAL JOURNAL:

To those who contemplate coming here in the near future, these fragmentary impressions of mine may perhaps prove not wholly worthless, while

to the many Wisconsin readers, and especially the Milwaukee doctors who have spent some of their most profitable days in the Allgemeine Krankenhaus, made famous by Billroth, the Israelitisches Spital, made famous by Zuckerkandl, or the Elizabeth Spital recently brought into prominence by the good work done by Wertheim, these disconnected memoranda may even meet with a warm reception. I should certainly be very much pleased if any efforts on my part could hark the reader back to memories and sentiments, to ambitions and ideals that this strenuous life of daily practice, and the early struggles for recognition have kept in abeyance these many years, only to bloom forth again with the recognition of the names of old, beloved teachers set in familiar surroundings by my humble letter.

To the doctor in easy circumstances with a weakness for scientific work, Wien is a heaven. I mean if he is wise enough to bring his family with him. It is a constant source of worry to have the wide ocean between you and the wife and children you love. I put this so guilelessly because I want my colleagues to profit by my shortsightedness.

The suburbs of Vienna are beautiful, and if the noise, dust and multiplication of smells of the city may perhaps be objectionable, it will be quite an easy matter to establish a little home in the outlying districts. All the surrounding villages and larger farms are connected with the city by steam and electric cars.

The social home and headquarters of the American doctors is the Cafe Klinik, located on Spitalgasse, right opposite the Krankenhaus. We are regularly organized, have our constitution and by-laws, officers, etc., general rules for new arrivals, directions and hold regular meetings. There is provision made for an Orientation Committee which has charge of the various courses in the respective departments of medicine. If courses are overcrowded, the date of registration will determine the right to priority. Of course, there is nothing in the constitution to prevent a man from doing private work under any of the instructors. There are not a few who think that the society has neither ethical nor legal existence; that it usurps individuality, shears the incompetent and the competent over one comb; that it selects its officers not on merit, but by the tenure of their stay in Vienna; that it is mercenary, and on the whole inimical to higher education. For example, a good man from Ohio, who had done work in Berlin and had a letter dated June 1, from one of the professors setting forth his acceptance as a pupil for the September term, was arbitrarily informed by a man who was a general practitioner and knew nothing about major surgery, that he could not enter the course because somebody who had reached Wien a day before—an eye and ear man, at that—wanted to take the course, and that there was room for only six. The Ohio man demurred, and takes a private course now, if I am correctly informed. This might possibly be an extreme case, yet it strikes me that the man—generally self-appointed—who runs a surgical course, should be a surgeon himself, and if possible let the professor giving the course decide as to who shall enter his class. Yet, withal, I believe that the Society does more good than harm, if it is true, as some claim, that the fees would soon become prohibitive but for this organization. This assumption, however, is so out of keeping with the scientific atmosphere of Vienna hospitals, that I would seriously hesitate to accept it. One thing is true, and we cannot escape its

seriousness, and that is that the men who come here now and ever since 1904 when the society was organized, do not compare very flatteringly with the men who came here prior to 1904. Would higher tuition fees not perhaps keep some men in the States to finish their elementary education instead of coming here to do post-graduate work? But all this will undoubtedly adjust itself in the course of time.

But to come back to our Cafe Klinik. Here doctors drop in during all hours—yes, sometimes very late hours at that—register (if it is their first visit) and begin the rapid process of orientation. Not infrequently this process is reduced to an acclimatization process hastened along over a bottle of Wiener or Muenchener beer. There is no "have a drink" here; everyone pays for his own drinks.

Beer, however, while the sole drink in restaurants, is not the main drink in this café or in coffee houses. Coffee, with or without cream, ices, lemonade, etc. are the usual beverages here. The café has no license to run a restaurant. Incidentally I wish to observe here that the substitution of coffee houses for saloons in Milwaukee would certainly have some material advantages.

Drunkenness is very rarely seen, and rowdiness is wholly unknown. There is very little, if any, demand for whiskey or brandy.* The percentage of alcohol in the beer too, is very low—a little over one per cent., I am told.

Wiener water is good. It is known all over the continent. We get our water from the mountains, fifty miles outside of Wien. As the city is still growing—Wien has over 2,000,000 inhabitants now—I hear some talk about laying additional pipes.

The streets are kept clean, yet the many disagreeable odors peculiar to all old cities, seem to linger here permanently. The sewerage system is fairly adequate, although in need of many inprovements. There is a book in the public library of Milwaukee that deals with the garbage question of Wien to which I refer the interested reader. Since the city wall was torn down and the wide circle enclosing the "down town" city, i e., the Stadt proper was transformed into a loop, the street car service has been much improved. The trolley is being rapidly replaced by the low-contact track—a recent German invention. This kind of track is absolutely safe and has many material advantages over the trolley or cable system.

The general health of the city is good, comparing favorably with other large continental cities. At present, however, we have a small-pox scare, and the city finds itself in a state of extreme unpreparedness, the vaccine supply being wholly inadequate. The ubiquitous anti-vaccinationist is not quite as blatant here as he is in Milwaukee—not quite as numerous either.

Cancer, syphilis, gonorrhea, and tuberculosis claim a proportionately larger quota of deaths of Wien than in Milwaukee. Cancer is very common, and few cases come to the surgeon in time. The x-ray treatment after the operation has been abondoned here. No results. Thorough, complete and radical resection with enucleation of all glands that can possibly be reached, is the universal and the only sensible practice. As a result of this radical

*Unless Wiener habits have changed materially, we are inclined to think that "Thee mit Rum" is still a popular beverage with the middle and lower classes. Ed.

Wertheim operation for cancer of the uterus, and Lorenz method for cancer of the breast, the immediate mortality is higher, yet the average period of life is prolonged. As I daily observe the multiplicity of visceral tuberculous lesions—all death-dealing in the end—I begin to fear that we are perhaps somewhat over-sanguine in Milwaukee when we tell the people that tuberculosis can always be cured by fresh air. It is well to educate the people in hygiene and sanitation, and thus bring hope into their hearts, yet I believe that it is always dangerous for the medical fraternity to promise too much. When our promises remain unfulfilled the reaction in the laity's mind will always militate against their future receptivity to very essential hygienic truths.

The disastrous sequelae of 'tripper' I see every day in the gynecological clinics. Many a young, innocent wife here is a martyr to her husband's early criminal folly. She pays with her tubes and ovaries, and only too often with her life, or the corpse of her yet unborn child, the belated, illicit tributes of some street-woman perhaps long since reduced to clay. It is a sad comment on civilization, that, during an era when we build sanatoria for the tuberculous, and sun hospitals for the infants, isolation hospitals for infectious diseases, and schools for the blind and deaf, we yet make no organized efforts to call a halt to the ravages of the murderous social diseases.

If we can fight and kill the trusts, root out graft, close up gambling dens; if a government is strong enough to do all this, why can we not lock up our street women and inmates—make them a public charge—permanently, if necessary, and rehabilitate their erstwhile domiciles into working houses? Let confiscation be the punishment for the letting of a room, apartment, or house, for immoral purposes. This may not reach the clandestine prostitute—yet it will cut the social crime in two and make her discovery the easier. By what right, and under what charter or peculiar sufferance do houses of crime flourish right under the nose of the law? If the young man is made to feel that society—his friends and neighbors—will begin to fear and loathe him, and place him on a level with the forger and robber, he will be more careful in the purchase of his love, and perhaps hesitate about proclaiming his shameless libertinism to the innocent and immature. Our remedy lies in education and publicity.

Wien, after all, is perhaps more of an unmoral than an immoral town. The city is supposed to be almost exclusively Catholic. Free masons are denounced, and sometimes even subjected to banishment. Protestantism is not considered good form, while the Jew is more tolerated than loved. Yet withal, the Wiener seldom goes to church—vastly preferring his beer to the holy water. The church here belongs exclusively to the very old, and to the very young. If he is sick he turns to his religion during his last hour—or perhaps just before some notable surgeon gets hold of him. It is with him a case of:

"The devil was sick, the devil a monk would be;
The devil got well, the devil a monk was he."

The birth-rate of Vienna is lower than in Milwaukee, but the relative proportion of illegitimacy runs as high as 31 per cent. The reason given for this enormous percentage is that the wages are too low to permit of marriage. Wages are very low in Wien, and women are competing with men in all the harder work. Dressed scantily, we see them doing construction work, carrying brick and mortar, etc. The Wiener laborer is never coarse and vulgar, and

the language of the Wiener girl, quite regardless of her coarse employment, and scanty, disordered appearance, remains polite and even sentimental. Men will haul a load of manure by your window, but it need not surprise you at all to see a bouquet of flowers planted on top of the load. I have noticed women sweating and bent under the burden of a heavy load of brick, yet the rose-bud often dangled from the turned-down collar of her scanty waist. Sentiment is inherent with the Wiener, and is the last attribute with which he parts.

Good food is not very plentiful in Vienna. The Wiener is not a very hearty eater,—his circumstances do not permit this. The cooking is fairly good—the pastry being exceptionally fine. The resources of the poor city are drained by a garrison of 30,000 men. The soldier is not perhaps what Roosevelt would call an undesirable citizen, yet he is worthless when in service and a burden when out of service. It often remains with him a case of:

"Soldier, soldier, won't you work?
No, by jinks, I'll sell my shirt."

The medical service outside the hospitals is often indifferent, and the medical fraternity here not connected with the hospitals is wholly demoralized by the society practice in vogue. I believe it was Dr. Blank, of Milwaukee, who in a communication to the WISCONSIN MEDICAL JOURNAL called every lodge doctor a "Pfuscher". The doctor is right. I have seen good doctors reduced to unethical church workers and automatic prescribers by the society practice. Vienna certainly is a hideous example to what a noble profession can be reduced by the system of society practice. Let Milwaukee take timely warning.

The various hospitals are filled by good men. Or, if they are not good clinicians or operators when they receive their appointments, as I understand is not infrequently the case here, they soon become efficient through the great opportunities offered them in the amount of material, and the scientific spirit pervading in every hospital.

Like in our country, the call to a professorship or to a "Hofrathship" is often more influenced by pull and luck than by academic or clinical training. It is common knowledge that Politzer, the greatest ear man in the world, had to wait many long years for the crowning laurels to his career because of his religion. It is also said that the call of Bier from Bonn to Berlin came not wholly on merit. Bier certainly has his superiors both as a diagnostician and as a technician. His bizarre, though relatively worthless, spinal-anesthesia method, some even accredit to Corning, and his formulation of the hyperemic treatment, which, even if of signal benefit as Dr. Willy Meyer would have it, has little new in it for the practitioner who practiced "Stauung" even before Bier was born. Yet Bier withal fared well when V. Bergmann's shoes were brought to him.

The fraternal spirit among the American doctors here is exceptionally friendly. Between the older and the younger men this feeling, in fact, is often paternal. Everybody is accepted on his merit, no matter how big or small a man he may be at home. The new men coming in daily are rapidly assimilated, everybody being friendly and eager to offer assistance. Unfortunately, we have one or two men here who are born grouches. I never ventured close enough to these men to ascertain whether they knew it all or whether they knew nothing. If they should continue to keep themselves in

contemptuous aloofness from the mere herd we all consider the advisability of graduating them and sending them home with their diplomas.

However, we have not a few men here who can hardly continue their work with profit to themselves. Some of these men are poorly educated, and not at all up or even fairly familiar with the medical literature of their respective specialties. These men, unfortunately, reflect little credit on our American schools. I cannot too strongly impress upon my colleagues the necessity of wide reading of late standard text books and journals, and a closer study of good illustrations before they come out here to do post-graduate work. Do not confine yourselves too much to one text book. Reading up on the same subject in different books, and, if possible, in different languages, and reviewing or rather studying the illustrations of different works, will often make a hard problem quite clear to the persevering student.

If, in addition, the prospective Vienna student is tactful, and acquaints himself with the various recognized methods of performing classical operations—remembering the technic and peculiarities of the various big men under whom he has studied; if he even acquaint himself with the literature or fads of his present instructors—if he does this, he will have comparatively easy sailing at the clinics. We must remember that the average clinician or surgeon shares our vanity—they are mere men—and therefore always willing to befriend the intelligent and well-read student who honors them by his presence.

Copious note taking while studying in Wien is often very advantageous. This will keep the student busy during the long cool evening hours. He can supplement his notes and interpret them with the help of the standard German works. If he secures a late edition of the works of the professor under whom he does his work, so much the better. In Vienna he can generally do this, and I found the writings of Schauta, Zuckerkandl, Wertheim—all very fine books—of great benefit to me. It does not materialy matter whether you can take your work under the Hofrat (which is very exceptional) or under one of the assistants, as the latter universally follow the methods of their respective chiefs.

The opportunities open to the medical student in Vienna are undoubtedly great. He can see from six to ten post-mortems every morning. The thoroughness of the German post-mortems puts the post-mortem work done at the Milwaukee morgue to shame. These post-mortems are not infrequently post operative ones, and the students will have a chance to notice the condition of the sutures, the amount of protective exudate thrown out at known length of time, and the numerous tissue changes that have taken place since the operation. He will also notice the thoroughness of the operation, the comparative integrity of an intestinal anastomosis, the reliability of ligatures, and the various sources of infection.

In pathology the student will be so fortunate as to have Dr. Ghon, one of the first men in Europe, as his instructor. The professor is certainly one of the most lovable men it was ever my good fortune to meet. The viscera of every interesting case of the day are prepared and shown up. The doctor is painstaking and spares no effort in making everything clear to his students. The session is generally introduced by a general discussion of a timely and particular subject. Following this, illustrative microscopic slides are pre-

sented to one-half of the class while the other half notices the macroscopical appearances in general. As there is so much material the student is enabled to see and cover an immense amount of ground in one or two courses. I forgot to mention that a complete history of every case, course of treatment pursued etc., is read before the respective viscera are taken up.

Another course that is a great favorite here with the surgeon as well as with the internalist, is Dr. Fuchs' course in neurology. The differential diagnosis of the various psychoses and neuroses; spinal and cerebral trouble; organic and functional disturbances, are clearly brought out by methods and means often as effective as original with the doctor. The professor, too, has resource to an unlimited amount of clinical material.

My course in cystoscopy and catheterization of the ureters was somewhat irregular for lack of time—other courses conflicting. In connection with this I wish to say that a new Nitze instrument is now being brought out by the well known Joseph Leiter firm, that promises to simplify this work.

I regret that I can tell you but little about the eye, ear, nose, and throat work, except that the boys are all very enthusiastic and very liberal in their praise of their professors.

The skin work, as I heard from Dr. Washburn who left for Paris some weeks ago, is not quite up to expectation. I regret this very much as the doctor was a congenial companion and I somehow miss him every day. Dr. Freund of our city is doing most of his work at the Rothschild Hospital.

From the surgical clinics I naturally derive the greatest benefit. I spent some time at the Elizabeth Hospital. They do good work there, but unfortunately, they have but very little regard for their patients. The German surgeons, I am sorry to say, are often rough if not actually brutal. They scold and stamp their feet incessantly at their assistants, sending them all on frequent excursions to Hades. Yet, even this is not the worst. I have seen a ureter not cut, as might happen to all of us, but torn in a fit of anger because the large fibroid tumor would persist in toppling over and obey the laws of gravity when placed on its unsupported apex. While I admit that this impish stubborness on the part of the tumor was very provoking to a German mind unused to a curb, yet, I profess, it was hardly sufficient ground for tearing the ureter. The ureter was telescoped and sutured successfully.

At the Schauta Clinic, Assistant Dr. Burger does much of the operating. He is a good worker, very thorough, yet his technique is open to the same criticism. He is too rough, and inflicts unnecessary injury to delicate vital organs. The doctor is, however, a very capable diagnostician.

The two assistants at the Chrobok Clinic do nice work. They, too, have an abundance of material—from 3 to 4 major operations every morning. Few visiting surgeons, for some reason, attend this clinic, thus giving the visitor the opportunity of standing right next to the operator.

The Eiselsberg Clinic, so famous in America, lives quite up to its well-deserved reputation. You will never have a lack of material here. A struma or two, a resection of the stomach, a common duct operation, or some interesting plastic work, you can see every morning. Drs. Haberer, Clairmont and Ranzi all do very good work here.

Of late the second surgical clinic of Hofrat Hochenegg has been coming to the front. Ass't. Albrecht, a very good man, and Dr. Hans Lorenz, the

coming surgeon of Wien, do exceptionally fine work here. Lorenz does perhaps the best work I have had the pleasure of seeing so far. He decides quickly, is deft, and works like an American. The German surgeons, as a rule, are slower in their work—often painfully slow, yet Lorenz's technic leaves nothing to be desired. In his intestinal, common duct, and stomach work, he has some methods peculiar to himself. (Kocher in his last edition, I notice, gives him credit for these). He uses no clamps in his anastomoses. During the visit of the French surgeons here he enucleated a particularly large bloody and adherent goitre, buried deeply behind the trachea, in 18 minutes. He also made a modified Kraske's for a high carcinoma in fifty minutes. Dr. Lorenz of the Hochenegg and Dr. Haberer of the Eiselsberg clinic, are very lovable men. They go out of their way to accomodate visiting surgeons, and if you manifest interest they will permit you to examine the case before the operation (the patient is never prepared the day before—only scrubbed for five minutes immediately preceding the operation), and also will permit you to follow up the subsequent treatment.

I regret that I cannot tell you much about the Rothschild Spital. I have spent a few days there and expect to go back the second week in September. Dr. Zuckerkandl does good work on the prostate there. He believes, with Young, that the gland can be best attacked by the suprapubic route. This hospital is finely equipped, and the operating room is the finest in the city.

I have so far been unable to satisfy myself as to the asepsis of the Wiener surgeons. They operate with cotton gloves. For suture and ligature material they use silk almost exclusively. They drain oftener than we do. Their incisions are always large—too large. They make a smaller opening in an intestinal anastomosis than we do. In strangulated hernia they always resect if gut looks doubtful. The interrupted suture is used here for all work. For the skin clamps are frequently used. Billroth's mixture is the only anesthetic used.

I have written all this very hastily this Sunday afternoon, yet, on reading it over, believe I have touched on most essentials. I shall leave for Berne in about two weeks where I expect to spend a short time under Kocher.

Some fine German works were brought out this year. From the illustrations in the Doderlein and Krönig work on operative gynecology I notice that the Germans have recently profited by studying American illustrations. I shall be pleased to place some of these books at your disposal when I return to Milwaukee sometime near November. I also enclose a reprint of one of Dr. Lorenz's articles on his favorite subject. I am sure that this will interest some of our friends. I have the honor of remaining.

Very truly yours.

RALPH ELMERGREEN, M.D.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President

Herman Gasser, Platteville 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

TERM EXPIRES 1911.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

TERM EXPIRES 1912.

3rd Dist., F. T. Nye, - - - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1913.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., C. J. Combs, - - Oshkosh

TERM EXPIRES 1908.

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - - Marinette

TERM EXPIRES 1909.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

TERM EXPIRES 1910.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

BARRON-POLK-WASHBURN-SAWYER-BURNETT COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Washburn—Sawyer—Burnett County Medical Society was held at Spooner, Wisconsin, September 10th, 1907, with Barron—Rusk—Polk County Medical Society as guests. A very successful program was carried out, with the usual banquet at Hotel Omaha. Dr. I. G. Babcock read a paper, *Some notes from my case book*, which brought out a general discussion. Dr. E. L. Boothby, our councilor, read an excellent paper on *Uterine Hemorrhage*, besides giving the new Society paternal advice. The scattered population of Washburn, Sawyer and Burnett counties made it difficult to hold successful meetings. Drs. Sheldon and Boothby advised the above counties to join in with Barron and Polk, leaving Rusk to join with Sawyer County. The following officers for the new Society were elected: President, Dr. J. P. Cox, Spooner; Vice President, J. D. Nicholson, Balsam Lake; Secretary and Treasurer, Dr. O. M. Sattre, Rice Lake; Censors, Dr. E. R. Herring, Shell Lake, for three years; Dr. Nels Werner, Barron, for two years; Dr. Gentz Perry, Amery, for one year. It was decided to hold the next regular meeting December 3d, at Turtle Lake.

O. M. SATTRE, M.D., *Secretary.*

GRANT COUNTY MEDICAL SOCIETY.

The fifth annual meeting of the Grant County Society Medical Society was held at Lancaster, September 18th, the president Dr. J. M. Lewis presiding. Owing to the severe storms and the bad condition of the roads only eight members were present.

Papers of unusual merit were presented by Dr. W. Cunningham on the subject of *Shock* and by Dr. J. H. Fowler on *Pleurisy with Effusion*. Free discussion followed the reading of these papers.

Interesting cases were reported by Drs. Critchlow, Lewis, Kinney and Cooper.

The election of officers resulted as follows: President, Dr. C. A. Armstrong; Vice-president, Dr. J. H. Fowler; secretary and treasurer, Dr. M. B. Glasier; delegate, Dr. G. C. Buck; censor, Dr. R. H. Kinney. The report of the secretary-treasurer showed this society to be in a prosperous condition.

The next regular meeting will be held at Platteville, on the second Thursday in December.

M. B. GLASIER, M.D., *Secretary.*

WASHINGTON COUNTY MEDICAL SOCIETY.

The Washington County Medical Society met at West Bend, September 26, 1907.

Dr. R. J. Muenzner, of Allenton, read a paper on *Variola* which was generally discussed.

Dr. C. Bossard, of Richfield, reported as delegate to the Superior meeting. The question of Medical Defense as proposed at the State Meeting was discussed by all present (eleven members) and the feeling was generally favorable.

The next meeting will be held at Jackson on December 26th.

C. BOSSARD, M. D., *Secretary.*

WAUKESHA COUNTY MEDICAL SOCIETY.

Meeting was called to order by the President, Dr. M. R. Wilkinson, with twelve members present. In the absence of the Secretary the President appointed Dr. Philler to act in that capacity.

Dr. Philler made his report as delegate to the State Medical Society meeting, held at Superior, August 21-22-23. He stated that the city of Superior may be called (as Dickens did in his American Notes-Washington) a city of magnificient distances, but offered many points of interest. The sessions of the Society were held in the aula of the beautiful Garfield High School and were as a rule well attended by the 103 members who had registered. The WISCONSIN MEDICAL JOURNAL of August and September had given a full synopsis of the proceedings of the papers read and of the lively discussions thereon. He felt sorry not to have been able to listen to the Symposiums on Headache, the "House of Delegates" holding a protracted meeting at the same time, a condition which should be changed at the 62nd

annual meeting. The suggestion of some members to follow our sister state Minnesota in discontinuing the quarantine in cases of smallpox, was not concurred in, Dr. Harper, the secretary of the State Board of Health stating that we were not prepared for it yet, not having compulsory vaccination like Minnesota. A committee was appointed to report at the next meeting regarding the feasibility of creating a protective Insurance Company under the auspices of the Society to protect the members in law-suits for malpractice, which became more and more frequent. He felt pleased to announce that Waukesha County was honored by electing our worthy member Dr. B. M. Caples first Vice-President, and also that the Waukesha County Medical Society stands in the front rank as to the regularity of holding their monthly meetings and as to the scientific work done, probably due to the efficiency of our secretary, for as Dr. Sheldon very drastically remarked: "For President you can elect (present company excepted) any d——d jackass, but for your secretary select the best man or woman who is willing to do the work." He stated in conclusion that the accommodations and social entertainments could not have been better, and that in his opinion every one went home with grateful recollections of the splendid times they had in old Superior.

Dr. W. B. Campbell, of Menomonee Falls, read a paper on *Nutritial elements in the treatment of the neuroses of childhood.*

Neuroses in general depend upon the following conditions: 1. Abnormal chemical structure of tissue. 2. Abnormal composition of the nutritive fluids supplying the tissue. 3. Derangement of nerve influence, their causes are found in Heredity, 2. Malnutrition. 3. Some local irritation acting reflexly. Food elements are proteids, carbo-hydrates, fats, salt and water, but the amount necessary is different in different individuals. Great care is necessary in selecting the many milk formulas for the child, manifested by the condition of the stools, gain in weight and the effects upon the child's nervous organism. The most common form of starvation is *fat starvation*, hence all infants foods are to be rejected, being deficient in fats, the cream being removed in the drying process; fat starvation is the most common cause of rickets, first shown by sweating of the head, restlessness at night, constipation, bed-wetting, etc. 2. Marasmus, occurring without any constitutional or organic disease. As sequels to these forms of malnutrition may be mentioned, bronchitis, epilepsy, tuberculosis and the various forms of anemia. The greatest factor is heredity, cases of congenital rickets are reported in Germany. In conclusion the writer called attention to the growing tendency of our best men to discard drugs of any kind in the neuroses of children and rely upon hygienic treatment, hydrotherapy, large irrigations and carefully selected diet. The paper was well discussed by all members present, and it was the belief of most that circumcision should be more done in cases where the neurosis is due to some local irritation, as long or tight prepuce.

Dr. M. Caldwell, of Waukesha, read a paper entitled *Causes and prevention of non-specific pelvic diseases in young girls.* The old adage, "Like father, like son" is not true in the other sex "Like mother, like daughter". Proper attention is not paid to the pregnant woman as should be done, and is done in the animal kingdom in similar conditions of approaching motherhood. Particular attention must be paid to the food given in childhood, the same should be bone-producing, not fat-producing, necessary exercise in the open air, must

not be sent to school too young, for if the mental powers are overtaxed, the nerves cannot carry the proper stimulus to the rapidly growing body; girls thrive better in the country than in the city, proper unrestraining dress should be worn, the young girls nearing maturity should not be compelled at high school to walk too often (8 times per day) up stairs, they should not be allowed to dance or play basket-ball during menstruation or just before such period. Basket-ball should be abolished entirely for girls between 12 to 16 years. The family physician should see that the girls between childhood and young woman-hood are given the best chance there is for perfect health, so when the joys of wifehood and motherhood come to them, they are not turned into chronic sufferers if not invalids. Also this paper was well discussed in all its phases, and quite a difference of opinion regarding gymnastics, etc., for girls was brought out by the several members.

HUGO PHILLER, M. D. *Secretary protem.*

BOOK REVIEWS.

The Principles and Practice of Dermatology. Designed for Students and Practitioners. By WILLIAM ALLEN PUSEY, A. M., M. D. D. Appleton & Co., New York, 1907. 1,000 pages. One colored plate and 364 text illustrations. Cloth, price $6.00.

In this period of wanton over-production in medical literature, the appearance of a book possessing real merit is a noteworthy occasion. Dr. Pusey's present contribution to the literature of dermatology is in the nature of a text-book, which, we have no hesitation in predicting, will be considered a standard work and remain so for years to come. It is written in an easy, fluent style, and everywhere gives evidence of the author's forceful personality, which lifts it out from among the usual class of text-books, and gives it a distinctive character. There are no long, involved and confusing descriptions of the clinical characteristics of skin affections, but the subject is presented in a lucid, readily comprehensible manner, without omission of the essential detail.

Especial attention has been given the principles of dermatology—anatomy, physiology, pathology and general etiology—which constitute the foundation upon which alone rests the proper conception of modern dermatology. Treatment both general and local receives full consideration and in an entirely practical manner, for it fully reflects the author's personal views. Throughout the book this same stamp of individuality is apparent.

The different diseases of the skin are considered in their relation to each other—in groups, where admissible—and in orderly sequence, which makes their comprehension less difficult.

Among the chapters deserving especial prominence in the short limits of a review, are those on syphilis and the malignant diseases. The chapter on syphilis is in effect a monograph, and is one of the best short presentations of the subject we have yet seen. The illustrations of this chapter are excellent and well selected, with the exception of two attempted reproductions

of the spirochaete pallida. The portion devoted to treatment is especially explicit and thoroughly practical. As is to be expected the subject of the epitheliomata receives extended and careful consideration, and the author's views of treatment are stated with a conviction which is the result of a large experience.

The illustrations are probably the best in faithfulness of reproduction and in care taken in their selection, which have as yet appeared in a work on dermatology. The publishers are to be highly commended for their lavishness in the matter of illustration, and for the excellent typographical work.

It is a distinct pleasure to recommend Dr. Pusey's work to the profession. (O. H. F.)

Obstetrics, a text-book for students and practitioners. By J. WHITRIDGE WILLIAMS, Professor of Obstetrics, Johns Hopkins Hospital, etc. Second enlarged and revised edition.

In this edition the chapters upon the development of the ovum and upon the toxemias of pregnancy have been entirely rewritten, and sections have been added upon the metabolism of pregnancy, vaginal Cesarian section, pubiotomy, and contractions of the pelvic outlet. The book is somewhat larger than was the first edition for this reason and because of numerous minor changes and additions throughout. The illustrations, which formed so striking a feature of the previous edition, have been added to and a number of the old ones replaced.

This excellent work needs but little commendation to those familiar with Williams' name and writings and is already in its former edition established as a standard in our best schools.

Localization of Dermatitis Herpetiformis. BOECK (Monatshefte f. prakt. Dermatologie, Sept. 15, 1907) calls attention to the diagnostic value of the marked predilection with which the lesions of dermatitis herpetiformis (Duhring's disease) appear in certain regions. Almost constantly affected are the elbows, with extension along the ulnar border of the forearm; the knees, and with great frequency the sacral region, especially about the upper portion of the intergluteal fold, often extending upward to the last dorsal epnious process. The scapular region and the shoulders are very frequently affected, as is also the outer surface of the upper arm where the lesions are often arranged in a broad band, a condition also found on the posterior surface of the thigh. The practically constant exhibition of lesions in the above localities in even light forms of dermatitis herpetiformis, leads Boeck to conclude that localization is the most valuable differential diagnosis sign in this disease. (O. H. F.)

THE WISCONSIN MEDICAL JOURNAL

JUNE, 1907.

TRANSACTIONS
OF THE
SIXTY-FIRST ANNUAL MEETING
OF THE
STATE MEDICAL SOCIETY OF WISCONSIN
AT SUPERIOR, AUGUST 21, 22, 23, 1907,

OFFICERS.

PRESIDENT.

L. H. PELTON, Waupaca.

VICE-PRESIDENTS.

A. J. BURGESS, Milwaukee. W. E. GROUND, Superior.
W. T. PINKERTON, Prairie du Chien.

SECRETARY.

CHAS. S. SHELDON, Madison.

ASSISTANT SECRETARY.

A. T. HOLBROOK, Milwaukee.

TREASURER.

S. S. HALL, Ripon.

PROGRAM COMMITTEE.

A. W. GRAY, Milwaukee. W. E. GROUND, Superior.
and the SECRETARY.

COMMITTEE ON ARRANGEMENTS.

C. H. MASON, Superior, Chairman.

DELEGATES TO THE A. M. A.

W. H. WASHBURN, Milwaukee. B. M. CAPLES, Waukesha.
W. T. SARLES, Sparta.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

A. W. GRAY, Milwaukee. I. G. BABCOCK, Cumberland.
O. H. FOERSTER, Milwaukee.

MINUTES OF THE SIXTY-FIRST ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN.

SUPERIOR, AUG. 21, 22, 23, 1907.

PROCEEDINGS OF THE GENERAL SESSION.

WEDNESDAY, AUG. 21.

The Sixty-first Annual Meeting of the State Medical Society of Wisconsin was held at Superior, August 21, 22, 23, 1907.

The meeting was called to order Wednesday, August 21st, 12 o'clock, noon, by the president, Dr. L. H. Pelton of Waupaca.

Order of Proceedings.

Meeting of the House of Delegates, at the High School Building. The order of exercises was as follows:

1. Roll call.
2. Report of Delegates to the American Medical Association.
3. Report of Councilors.
4. Report of Treasurer.
5. Report of Secretary.
6. Election of two delegates to the American Medical Association.
   Election of Committee on Scientific Work.
   Election of Committee on Public Policy and Legislation.
   Election of Councilors, 5th and 6th districts.
   Election of Committee on Nominations (10).
7. Miscellaneous Business.

WEDNESDAY, AUGUST 21.
MORNING SESSION 11:00 O'CLOCK.

Call to order by the President—L. H. Pelton.
Invocation—Rev. U. S. Villars.
Address of Welcome—Hon. Victor Linley, Mayor.
Response by the President of the Society—L. H. Pelton.
Report of Committee of Arrangements—C. H. Mason, Chairman.
Report of Program Committee—W. E. Ground, Chairman.
Report of Chairman of Council—E. L. Boothby.

WEDNESDAY, AUGUST 21.

MORNING SESSION, 11 A. M.

PRESIDENT PELTON.—Gentlemen:—I am very glad to greet you. I am reminded of a very popular lecturer, who upon an occasion when there were just about half a dozen people scattered on one side of the house, in which he was to deliver his lecture, said "Ladies and gentlemen and empty chairs." It is very unfortunate that, owing to the delay of trains, our physicians have not been able to get here on schedule time; but it is something that we cannot help; and if it is agreeable to all concerned, we will adjourn until 1:30 P. M., for the reason that the gentlemen who take part in the program would prefer to have an audience to listen to their talk, and this would certainly be pleasanter all around. Now, let every member constitute himself a delegate to notify the other members to be here at 1:30, so that we can commence promptly on time; and if that is agreeable—If some one will make a motion to adjourn to 1:30 P. M., it will be in order.

Moved, seconded and unanimously carried to adjourn to 1:30 P. M., same day and place.

AFTERNOON SESSION, 1:50 P. M.

Meeting called to order by the president.

Invocation was offered by the Rev. U. S. Villars, of Superior.

PRESIDENT:—The next number will be an address of welcome. I take pleasure in introducing the mayor of Superior, the Hon. Victor Linley.

MAYOR LINLEY—Doctors and gentlemen of the convention: Welcome to Superior. I see that the doctors (those that are not here) have fallen into their usual habit of coming late—always late—but to those that are here I will say that in behalf of the city of Superior and her people, I extend to you all a most enthusiastic welcome.

We are not only glad that you are here as visitors, but also as doctors, and we welcome you as doctors as well as visitors. You know the old saying that a doctor's presence is in itself a tonic, and now we naturally expect that your aggregated presence here in the city will so purify the atmosphere and brace up the people that there will be no illness here for a long time to come.

Now I am glad that you are here, and not only on behalf of the city, but individually and personally I extend you a warm greeting.

I am not a doctor myself, but I am the son of a doctor and come from a family of doctors, and so I feel that there is a strong bond of sympathy between us. In fact I may say that not only my father, but my grandfather on my father's side, my grandfather on my mother's side, and one of my two brothers and several uncles were doctors; so that I come from a family of physicians.

But somehow or other I missed the grand calling of physician myself

and became instead a lawyer; but notwithstanding that I got a good deal of training along medical lines, because I used to go with my father to see his patients, and had an opportunity to get onto the inside and the wrinkles of the profession more or less, and I remember that my dear old father was a doctor of the old school, and he had an intense hatred for what he called proprietary medicines, and had a very broad definition of quackery, as he called it; and he thought the quacks were very numerous, I know, in the profession.

I speak of this not so much along the line of autobiography, but to let you know how glad I am that you are here, and how I appreciate your presence; and I hope that I will get acquainted with every doctor who is here, and I will tell the people of this town that if they want to feel good and want to have a good time, they must come up here and spend all their time with the doctors.

But I know of course you have business here to attend to, and you are probably going to be very busy, and your discussions and conferences will naturally be of great benefit to the people of the entire state. I think that is peculiarly true of a convention of physicians and surgeons, more so than of any other kind of convention, on account of the progress that naturally takes place in your profession.

But at the same time, while you are going to be busy, outside of business hours I want you to have a good time and enjoy yourselves while here, and we will certainly do our level best to see that you do have a good time while you are here.

Now, the entire city is yours, and you must help yourselves to everything that you want. Of course you will all remember that the lid here is on on Sunday, but it is not on week days.

At the same time I want to caution you all against the practical jokers in the profession, and we have some of them here as they have everywhere; and to be on the lookout if the lid is tilted.

I think I ought to tell you in confidence of a little thing that took place three or four weeks ago, so that you can be on your guard. There were a couple of doctors here in town—I won't mention their names—they are high grade doctors all right; and they came home late one night from their offices (of course)—and as they were proceeding along one of the downtown streets they saw a man in the gutter, and went up and looked at him. A hasty examination showed that he was the worse for liquor only; and they talked it over a minute or two, then looked around and saw that there was an undertaking establishment two or three doors away. So they picked the man up and carried him into the undertaking establishment, where it chanced that there was a new attendant who was just starting in to learn the business, having been there but a few days. He was on duty at night, and took care of the place. So the doctors carried the drunken man in and met the new attendant at the door, and told him the man had been killed, and requested the attendant to keep him there until the undertaker came in the morning. He assented to the request and the doctors put him on the laying-out slab, covered him over with a piece of oilcloth and left. Then the new attendant sat down in his chair, as usual, nodding, dozing, and waiting for new arrivals. Now, along in the middle of the night the drunken man began to sober up a little and stir around; and the new attendant seemed to hear noises; but he concluded each time that it was all his imagination, because of course the man

was dead, and it could not be he. But finally the drunken man, supposed to be dead, sobered up pretty well and raised up on the slab, threw off the oil-cloth, looked around, took in the situation, let out a shriek of horror, jumped from the slab, rushed out from the undertaking establishment into the street and home; and just as he raised himself the new attendant came to from one of his nods, and saw the man rise from his slab, shriek and run away. So the new attendant emitted a still greater shriek of horror, rushed out into the street also, but in a different direction from that of the "dead man." The next morning the owner of the establishment had a telephone call from the new attendant, saying he guessed he did not want that job any longer. The owner told him he had better come around and get the wages due him anyway, but he said, "never mind the wages."

Now, that is a true story that actually took place here a few weeks ago, and I think you ought to know it; because if you should get into that condition, you should be on the lookout for your fellow conspirators here in the profession.

I hope that this convention will be a grand success, not only as a doctor's convention, but for the benefit of the whole people of the state, as a matter of progressiveness in the medical profession, and we hope also that you will have, and we want you to have, a good time while you are here; that is very important, because we want you to come back here again to hold other conventions. We do not want this to be the last one by any means. So we want you to have a good time; and when you do have to go and we hope that you will put it off as long as possible, we trust you will only go to come again some other time. I thank you all.

PRESIDENT:—In behalf of the Wisconsin State Medical Society I wish to thank you for your cordial welcome, and through you I wish to thank the committee, the ladies and gentlemen who have done so much to entertain the physicians of this society. We all feel very grateful and are very glad to be able to come here and partake of the stimulating atmosphere. Of course I cannot vouch as to how much of other stimulating things will be partaken of. But there are two or three of the old members with whom I have drilled for several years, and I think it would be advisable to be on the lookout for them.

We feel that in coming to Superior, we are coming to a superior country, endowed with riches, endowed with plenty of good, wholesome water and ozone, and plenty of brain food to be taken from those waters, and I know that they will all go away feeling very much benefited by their outing. Personally I am feeling the benefit of it already, and I am very glad that we are here. Again I wish to thank you for your cordial welcome.

Gentlemen, the difficulty in arriving here and in getting together has rather upset our plans; we must deviate a little from our original plans and will have to tolerate a little hurry over the work. I will

now call upon the Chairman of the Arrangement Committee, Dr. C. H. Mason, for his report.

Dr. C. H. Mason, Superior, spoke as follows:

MR. PRESIDENT AND GENTLEMEN:—It was a year ago in the City of Milwaukee, when we were fortunate enough to secure this convention for our city at this time; and as you all know we made several promises at that time; and we trust that you will all feel satisfied that our promises have been kept.

We have made certain arrangements, gentlemen, which we think are very good, and I will simply mention some of the entertainments that we have on the program.

Now, first, in reference to the hotels: we have three first-class hotels, the Superior, the Rossiter and the Great Northern. As I understand, the Superior Hotel is crowded, but at the Rossiter and the Great Northern, which are very good hotels you will find ample accommodations. You will find, I think, plenty of rooms and good rooms, and they have promised us that there will be no overcharging, and I think they will keep their word; so we think the hotels can accommodate everybody.

Dr. Pelton has told me the House of Delegates will meet immediately after the reports of the committees have been received, in the room below, instead of this evening at 7:30 as originally intended. It is to be regretted that we were compelled to make some changes in the program—as for example our boat ride, one of the most important features, which was scheduled for tomorrow night; but we were unable to get the boat that we wanted at that time, a large lake steamer of steel, and perfectly seaworthy; so we have secured the boat for this evening, and none need be afraid to go out on her; Please remember that the boat will leave the main slip at 5 o'clock sharp, and you should all see that you get a ticket at the secretary's office. They are for you, and if you want more than one or more than two, you can get whatever number you want. I want you all to be there, and we feel that it will be a delightful trip. Lunch will be served free on the boat, and good music furnished.

Tomorrow, Thursday, at 10 o'clock, there has been arranged a tally-ho party for the ladies, which will start from the Superior Hotel at 10 o'clock, for a ride along the lake shore, returning to the hotel at 1 o'clock when dinner will be served for the ladies.

Gentlemen, we would like very much to know how many ladies there are here, as we want to make arrangements for the proper number, and if you will all be kind enough to see that you leave your names and the ladies' names at the secretary's office, so that our ladies can make arrangements for a definite number, we will be greatly obliged.

The ladies will have a tally-ho ride in the morning and dinner at 1 o'clock; and tomorrow evening there will be a reception at the home of Dr. and Mrs. Ground at 8 o'clock, two blocks from the Superior Hotel. Of course they are desirious of knowing as nearly as possible how many ladies there will be in attendance. So kindly do not forget to leave the ladies' names at the secretary's office; and we trust that all the visiting ladies as well as the doctors' wives in the city, will attend this reception. There will be splendid music and refreshments and everything of that kind. Our ladies have gone to

considerable trouble and they are in hopes that all the ladies will take advantage of this invitation for 8 o'clock tomorrow evening.

At the same time we have our smoker for the gentlemen at the Commercial and the Elks clubs at 8 o'clock tomorrow evening, at the time that the reception takes place at Dr. and Mrs. Ground's residence.

There is another thing that I wish to mention, and that is the launching which we have on Saturday at 12 o'clock, at the ship yards. We tried to have this launching a day in advance, on Friday, but a launching party consisting of 100 people or more, are coming from the east, so that it was impossible to change the date. I trust, however, that as many as can will take in the launching, as it is one of the grandest sights you could witness. They are going to launch a 600 foot modern steel freight boat, one of the largest in the world, and it is a sight well worth going many miles to see.

I do not know of anything else to say, except that we are pleased to see so many of you here, and we will endeavor to do all in our power to see that you are well taken care of. I know you will all say that we have a splendid meeting place here. I think it is the best place we have ever had for the meeting of the society, and we will endeavor to see that you are all well taken care of. I trust that every one of you will attend the launching, the smoker, and the reception at Dr. Ground's residence.

PRESIDENT:—The next in order will be the Report of the Program Committee, Dr. W. E. Ground, of Superior, chairman.

DR. WILLIAM E. GROUND of Superior:—Mr. President, Ladies and Gentlemen—My task is easy inasmuch as we have our report in printed form and in your possession. By way of elucidation I might say that in getting up a program for a body such as this, where the general practitioner is decidedly in the majority, we aim to cover the field with short practical papers upon subjects of timely importance and leave speculative subjects to their respective organizations.

In addition to the miscellaneous papers we have two symposia upon important diseases frequently met with in the daily practice of the busy doctor: Headache and Purperal sepsis. While in general surgery we have eliminated septic infection, infections following labor have been little if any lessened. It occurred to us that the only way to better this condition was in its frequent discussion before bodies like this.

The addresses will be of more than usual interest, owing to the prominence of the men and the importance of their topics.

Prof. George Dock, of the University of Michigan, on "Recent Advances in the Study of Heart Diseases," and Prof. George Crile, of Western Reserve University, on "The Direct Transfusion of Blood," form a combination which alone is worth the "price of admission," and need no introduction at my hands. Being more particularly interested in surgical literature I am better acquainted with Dr. Crile's work. Although I do not know the scope of the doctor's address, I am sufficiently familiar with his recent investigations along the line designated to give you some idea of what is in store for you. He takes the blood directly from an animal of the same species and transfers it by means of a tube connecting the artery of the animal or person to a vein of the patient. This process is recommended in conditions of acute anemia, shock and impoverished states of the blood.

The part of the program I refer to is your mental feast and is intended to supplement the part of the program Dr. Mason has just presented. We hope they will be found sufficiently well balanced to meet with your entire approval and that you will want to come to Superior again soon.

Your welcome has been so pleasantly and I hope efficiently administered, by our respected and esteemed Mayor, and the Chairman of the Committee of Arrangements, that I will not attempt to add to what has been already said.

The Pro. ram is as follows:

WEDNESDAY, AUGUST 21.

AFTERNOON SESSION, 2:00 O'CLOCK.

1. President's Annual Address.....L. H. Pelton, Waupaca.
2a. Pneumonia.....L. A. Potter, Superior.
b. Mechanisms of Pneumococcal Infections, H. E. Wolf, La Crosse.
Discussion opened by
George Saunders, Superior.
H. J. Orchard, Superior.
C. M. Echols, Milwaukee.
E. W. Quick, Appleton.
3. Intussusception in the Adult with Report of Case,
.....C. L. Combs, Oshkosh.
Discussion opened by
Karl Doege, Marshfield.
M. D. Bird, Marinette.
4. Venereal Diseases and Marriage.....D. J. Hayes, Milwaukee.
Discussion opened by
Herman Reineking, Milwaukee.
Julius Noer, Stoughton.
5. A Description of the Epilepsies.....E. M. Turner, La Crosse.
Discussion opened by
B. M. Caples, Waukesha.
W. T. Sarles, Sparta.
6. A Practical Talk on the Treatment of Mental Diseases,
.....E. B. Bradford, Hudson.
Discussion opened by
B. M. Caples, Waukesha.

THURSDAY, AUGUST 22.

MORNING SESSION 9:00 O'CLOCK.

7. Symposium on Headache,
Internist.....L. F. Jermain, Milwaukee.
Neurologist.....B. M. Caples, Waukesha.
Gynecologist and Surgeon.....L. R. Head, Madison.
Ophthalmologist.....H. V. Würdemann, Milwaukee.

Rhinologist.....C. D. Conkey, Superior.
Aurist.....H. B. Hitz, Milwaukee.
Discussion opened by
W. H. Neilson, Milwaukee.
J. M. Dodd, Ashland.
J. A. L. Bradfield, La Crosse.

8. Simple Ulcer of the Female Bladder..M. W. Dvorak, La Crosse.
Discussion opened by
W. A. Gordon, Jr., Oshkosh.
F. W. Pope, Racine.
9. Management of Labor.....F. W. Epley, New Richmond.

11:30 O'CLOCK.

10. Annual Address in Medicine, Dr. George Dock, Prof. of Medicine, Michigan University, Ann Arbor, Michigan.
"Recent Advances in the Pathology and Therapeutics of Heart Disease."

AFTERNOON SESSION 2:00 O'CLOCK

11. Nerve Lesions Complicating Simple Fractures of Long Bones and their Treatment.....Karl Doege, Marshfield.
Discussion opened by
C. H. Lemon, Milwaukee.
Christian Midelfart, Eau Claire.
12. Removal of Gall-stones from the Second and Third Portions of the Common Bile-duct.....F. Gregory Connell, Oshkosh.
Discussion opened by
Edward Evans, La Crosse.
R. H. Jackson, Madison.
13. Early Diagnosis of Gastric Carcinoma,
.....Wm. Ackermann, Milwaukee.
Discussion opened by
F. Gregory Connell, Oshkosh.
A. J. Patek, Milwaukee.
14. Prevalent Ocular Diseases.....N. M. Black, Milwaukee.
Discussion opened by
C. D. Conkey, Superior
15. X-Ray Burns.....O. H. Foerster, Milwaukee.
16. Complications and Sequellae of Scarlet Fever,
Otho Fiedler, Athens.
Discussion opened by
W. B. Hill, Milwaukee.
A. W. Gray, Milwaukee.

17. The Physician in His Relation to Contagious Diseases and the Public.....C. A. Harper, Madison.
Discussion opened by
G. A. Bading, Milwaukee.
H. J. Orchard, Superior.

FRIDAY, AUGUST 23.
MORNING SESSION, 9:00 O'CLOCK.

18. Symposium on Puerperal Sepsis,
a. Etiology and Pathology.....Wilhelm Becker, Milwaukee.
b. Diagnosis and Clinical History, George Saunders, Superior.
c. Surgical Treatment.....J. M. Dodd, Ashland
d. Medical Treatment.....H. L. Rosenberry, Wausau.
Discussion opened by
J. R. Barnett, Neenah.
Herman Reineking, Milwaukee.
John Baird, Superior.

10:00 O'CLOCK.

19. Annual Address in Surgery,
Dr. George W. Crile, Cleveland, O., Prof. Surgery Medical Department, Western Reserve University.
"On the Direct Transfusion of Blood."
20. Variola.....J. P. Cox, Superior.
Discussion opened by
H. J. O'Brien, Superior.
J. B. Trowbridge, Hayward.
21. What does Disease Mean?.....Herman Gasser, Platteville.
Discussion opened by
Wilhelm Becker, Milwaukee.
D. W. Harrington, Milwaukee.

PRESIDENT:—We will next listen to the report of the Chairman of the Council, Dr. E. L. Boothby, of Hammond.

DR. BOOTHBY:—Inasmuch as the House of Delegates is to meet in a few minutes below, I would ask if it will not be proper for the report of the Councilors to be made to the House of Delegates, and let this literary meeting go on.

Motion seconded and unanimously carried that the report of the Chairman of the Council be deferred until the House of Delegates meet and be given directly to them.

(Dr. W. E. Ground, vice-president then took the chair.)

VICE-PRESIDENT GROUND:—I now have the pleasure of introducing Dr. Pelton, the president of the society, though he really requires no introduction, who will now deliver his address.

PRESIDENT:—I think it will be a great relief to you, and I know it will to me, to get rid of this address while we are in good spirits and while we have not eliminated too much of the ozone absorbed here. I shall detain you but a very short time.

The President then read the Annual Address (published in September JOURNAL).

VICE-PRESIDENT:—We will now listen to a paper on "Pneumonia" by Dr. L. A. Potter, of Superior, and a paper on "Mechanisms of Pneumococcal Infections," by Dr. H. E. Wolf of La Crosse.

Papers discussed by Drs. Edward Quick of Appleton; L. F. Jermain of Milwaukee and E. J. Brown of Decatur, Ill.

Dr. C. J. Combs, of Oshkosh, then read a paper on "Intussusception in the Adult, with report of a case."

Discussed by Dr. W. E. Ground of Superior, and Dr. Gentz Perry of Amery.

Dr. D. J. Hayes, of Milwaukee, read a paper on "Venereal Diseases and Marriage," which was discussed by Dr. H. Reineking of Milwaukee, and B. M. Caples of Waukesha.

VICE-PRESIDENT GROUND:—In view of the fact that the time is approaching very near when we are instructed to have ourselves in readiness to take the boat-ride and lunch, I would suggest that we discontinue our discussion at this point.

A recess was here taken until 9 A. M., next morning, Thursday, August 22, 1907.

THURSDAY, AUGUST 22, 1907, 10 A. M.

Meeting called to order by the President.

PRESIDENT:—I was requested to announce that there would be a Rush Alumni lunch at the Hotel Rossiter at 1:15 to-day. All those who wish to attend, and all the alumni from Rush College especially, please bear that in mind. We will now take up the program where it was left yesterday at adjournment. We will take up the subject of "Symposium on Headache."

This was considered under the following headings:

Dr. L. F. Jermain, of Milwaukee, from the point of view of the Internist.

Dr. B. M. Caples, of Waukesha, from the point of view of the Neurologist.

Dr. H. V. Würdemann, of Milwaukee, from the point of view of the Oculist.

Dr. C. D. Conkey, of Superior, from the point of view of the Rhinologist.

Dr. H. B. Hitz, of Milwaukee, from the point of view of the Aurist.

Papers discussed by Drs. L. F. Bennett of Beloit and J. M. Dodd of Ashland.

PRESIDENT:—We will now take up the next subject, and I believe Dr. Evans has a paper for Dr. Dvorak, of LaCrosse.

DR. EDWARD EVANS, OF LA CROSSE:—I am very sorry that Dr. Dvorak, my assistant, is not here to read his paper, because for the last few years he has taken deep interest in genito-urinary diseases, especially those involving the use of the cystoscope; but as I have observed most of the cases here reported, I may properly read the paper.

Dr. Edward Evans then read a paper on "Simple Ulcer of the Female Bladder," by Dr. M. W. Dvorak, of La Crosse.

PRESIDENT:—As it is so near the time allotted for the Address on Medicine, with your permisison we will discontinue the discussions and resume them after adjournment. We are very fortunate in having with us to-day a gentleman who will give us the address on Practical Medicine. I take pleasure in introducing Dr. George Dock, Professor of Medicine in the University of Michigan, Ann Arbor.

Professor Dock then read the Annual Address in Medicine, on "Recent Advances in the Pathology and Therapeutics of Heart Disease."

At the conclusion of the reading of the paper a rising vote of thanks was extended to Dr. Dock.

A recess was then taken until 2:00 o'clock P. M., same day.

THURSDAY, AUGUST 22, 1907, 2 P. M.

Meeting called to order by the President.

PRESIDENT:—We left a little work unfinished, in order to give Dr. Dock an opportunity to read his paper, and we will now go back and take up the discussion of Dr. Dvorak's paper on "Simple Ulcer of the Female Bladder."

I feel that this is an important subject, a very good paper and very exhaustive, and I dislike to lose the opportunity of hearing some of the gentlemen here who have had experience in that line, discuss it.

Paper discussed by Drs. W. T. Sarles of Sparta; J. R. Barnett of Neenah.

Dr. Karl Doege, of Marshfield read a paper on the subject of "Nerve Lesions Complicating Simple Fractures of Long Bones and their Treatment."

Paper discussed by Dr. Herman Reineking of Milwaukee, Dr. E. S. Hayes of Eau Claire, and Dr. G. Perry of Amery.

Dr. F. W. Epley, of New Richmond, then read a paper on the subject of the "Management of Labor."

Paper discussed by Drs. J. P. Cox, of Superior; Dr. Hugo Philler, of Waukesha; Dr. Julius Noer, of Stoughton, and Dr. A. D. Gibson, of Park Falls.

Dr. F. Gregory Connell, of Oshkosh, then read a paper on "Removal of Gall-stones from the Second and Third Portions of the Common Bile-duct."

Paper discussed by Dr. Edward Evans, of La Crosse.

Dr. Wm. Ackermann, of Milwaukee, then read a paper on the subject of "Early Diagnosis of Gastric Carcinoma."

Paper discussed by Dr. F. Gregory Connell, of Oshkosh.

Dr. N. M. Black, of Milwaukee, then read a paper on the subject of "Prevalent Ocular Diseases."

Paper discussed by Drs. C. D. Conkey, of Superior; J. Steele Barnes, of Milwaukee.

Dr. O. H. Foerster, of Milwaukee, then read a paper on the subject of "X-Ray Burns."

Paper discussed by Prof. Charles R. Bardeen, of Madison; Dr. George Saunders, of Superior.

DR. C. S. SHELDON:—It is now nearly six o'clock, and the attendance is rather small. Dr. Harper's paper is the remaining one on today's program, and I would move that Dr. Harper's paper be deferred until to-morrow morning, and that we listen to him the first order of exercises in the morning.

PRESIDENT:—It is an important paper, and we feel that we would like to have as many present as we could possibly get out to hear the paper.

A recess was then taken until 9 o'clock next day.

FRIDAY, AUGUST 23, 1907, 9:30 A. M.

Meeting called to order by the President.

Dr. C. A. Harper, of Madison, then read a paper on the subject of "The Physician in His Relation to Contagious Diseases and the Public."

Paper discussed by Drs. H. J. Orchard, of Superior; Nelson M.

Black, of Milwaukee; John Baird, of Superior; Edward Evans, of La Crosse; O. H. Foerster, of Milwaukee; Julius Noer, of Stoughton; Herman Gasser, of Platteville; Wm. B. Eicher, of Boscobel.

DR. WILLIAM H. ELLIS, of Barron:—Mr. President, Dr. Cox has a paper on smallpox, and I move that the discussion be postponed until after his paper is read, and the discussion can be had together on those two papers.

Motion seconded and carried.

PRESIDENT:—I would like the attention of the society for an explanation before taking up that paper and resuming this discussion. Our Secretary has a communication here which I will ask him to read at this point.

The Secretary then read letter and telegram from Dr. Crile.

August 21, 1907.

Dr. William E. Ground, Superior, Wis.

MY DEAR DR. GROUND:—Since I last wrote you complications have arisen here in Cleveland which make it very doubtful whether I shall be able to come to Superior as I had anticipated. I have recently operated on the only daughter of an old friend. The mother is not living and the father, who was in Paris at the time, is hurrying back to this country. It has been a grave case of appendicitis with bacteremia and I doubt whether she can recover. Unless, unhapplly, she should not live until the Superior meeting, I feel that I could not inviolate my obligations here under the circumstances. I am, therefore, sending you my paper for such disposal as you may see fit. I am exceedingly sorry and disappointed not to carry out my original plans, as I have looked forward with much pleasure to being with you all at that time.

Should the situation here in Cleveland be altered, I shall lose no opportunity in coming at the last moment; otherwise, I feel that I must give up the trip. I hope this is putting you to no great trouble or inconvenience. Should you care to have me come at some future time, I shall be most happy to do so.

Regretting my inability to be with you, I am, sincerely yours.

GEORGE W. CRILE.

Cleveland, O., Aug. 22, 1907.

Dr. William E. Ground, Superior.

Sincerely regret impossibllity to be with you. Best wishes for successful meeting.

GEORGE W. CRILE.

PRESIDENT:—Dr. Crile's paper was sent and Dr. Ground has it. If it would be your wish to have that paper read we will do so.

DR. SARLES:—I move that the paper be put in the hands of the publishing committee.

Motion seconded and unanimously carried.

Dr. J. P. Cox, of Superior, then read a paper on the subject of "Variola."

Paper discussed by Drs. H. J. O'Brien, of Superior; W. T. Sarles, of Sparta; William B. Eicher, of Boscobel; E. L. Boothby, of Hammond; C. A. Armstrong, of Boscobel; G. Perry, of Amery; J. B. Trowbridge, of Hayward; O. H. Foerster, of Milwaukee, and Dr. Harper, of Madison.

PRESIDENT:—I received a communication a few weeks ago from an old member, a standby of this association, although he is not a member now, and he assured me that he did not know that he would ever be with us again; but many of you have known him well in the past, and he has taken a very active and prominent part in our meetings; and he was anxious to be here to take part in this discussion. He has prepared a paper along this line. He took a great deal of pains and the paper was sent here. Now, that paper this gentleman asked to have referred to the committee on publication, because he thought it would do some good. I refer to Dr. Fuchs.

Motion made, seconded and carried that the paper be referred to the committee on publication.

PRESIDENT:—The next subject will be a "Symposium on Puerperal Sepsis."

Dr. George Saunders, of Superior, presented a paper on the "Diagnosis and Clinical History of Puerperal Sepsis."

Dr. J. M. Dodd, of Ashland, delivered an address on the "Surgical Treatment of Puerperal Sepsis."

PRESIDENT:—Dr. Rosenberry is not present, but he has kindly sent his paper.

DR. SARLES:—I move that the paper be referred to the Committee on Publication.

Motion seconded and carried.

A paper by Dr. H. L. Rosenberry, of Wausau, on the subject of "Medical Treatment of Puerperal Sepsis" was then presented.

Paper discussed by Dr. Herman Reineking, of Milwaukee.

PRESIDENT:—We have one more number, by Dr. Herman Gasser, of Platteville, on "What does Disease Mean?"

DR. GASSER:—Mr. President, most of the trains leave early after dinner. A good many of the members want to go home. There are quite a few here and quite a little other business to do, and I will just pass my paper up to the committee, because I feel sure that the paper will not be interesting. It is rather technical, and I will relieve you from that misery.

DR. J. R. BARNETT, of Neenah:—Could not the doctor present the salient points and submit his manuscript?

DR. GASSER:—I could not do that in five minutes. This is only part of another paper that I think might be made interesting, but this paper is not interesting.

PRESIDENT:—I do not think either of the members are present who were to discuss this paper, and we will offer the same apology for not covering this discussion, on account of lack of time. We have now our report from the Secretary.

SECRETARY:—It has been usual to give a brief resume of the action of the House of Delegates for the benefit of the general session.

I would say that the progress has been on the whole satisfactory. We had 56 reports from the different county societies, and the tabulated replies in answer to the questions that I sent them, show that there is improvement, so far as the activities of the societies are concerned.

Thirty-one societies, or over half, are doing first rate work, that is, holding regular meetings with sustained interest and good papers. Of course the others are varying in degrees of efficiency. But on the whole the trend is in the right direction, and the profession of the state is getting educated up to that point where they appreciate the importance and necessity of getting together, not only for scientific discussions, but also for carrying out the ideas that this movement represents, of getting together for various purposes and standing by one another.

As to numbers, last year the number of dues paid in 1906 up to the time of the meeting, was 1434. I said then that I thought probably during the year the number would reach about 1500. When I reported to the House of Delegates on the first day of the meeting this year there were 1497, and I have received 5 fees since then, which would make it 1503.

The number that we report to-day of new members who have paid the 1907 dues up to date, is 1461, and the increase last year was 63. I think the gain will be greater next year, that is, it will be more than 63, for the reason that our meeting will be held in Milwaukee. It will be perhaps 70; so that our total membership next year will amount to about 1540. As I said in my report, we probably have 2000 eligible physicians in the state. We cannot expect to get them all, and we cannot expect the same ratio of growth after the first two or three years that we get at first, because the supply is limited. If we get a maximum of 1600 or 1700 members, we must be satisfied, except as the profession naturally grows.

So much for the general conditions and numbers. I say that it shows progress, not quite as great as the year before, but satisfactory, and it is in the right direction.

Dr. Mears was elected councilor of the Fifth District. Dr. Walbridge of the Sixth declined re-election and Dr. Combs of Oshkosh was elected in his place. Dr. Sarles of the Seventh District, who has been a most efficient member of the Board of Councilors for many years, insisted on resigning on account of numerous other official duties, and Dr. Edward Evans, of La Crosse, was elected in his place.

A matter of importance in the Secretary's Report was the suggestion that the Society adopt a plan of medical defense. Such a plan has now been in use in half a dozen of the other State Societies. In Illinois, and in the larger local Societies in Illinois, it has been in use four years, in New York three or four years, in Pennsylvania the same, and in Nebraska the same. In all the States where they have made use of it they are enthusiastic in its favor. They say it improves the morale, the loyalty, and the spirit of the profession, in that the members are standing by one another in regard to such matters as blackmail suits and persecutions, as most of the cases are. It is also a great aid to organization. You can collect your dues quicker and get new members more easily if they know they are getting a substantial *quid pro quo*. So too, if they get into trouble it is a great comfort to think that there are 1500 good and loyal men who will back them up to the Court of last resort, and they can depend on it, and that they can furnish counsel a great deal stronger and better than the man who undertakes the case. When blackmailers find out that they have got to meet this sort of a proposition they are usually quite ready to drop the case. As a matter of fact, in these years not a single cent of damages has been assessed in New York, Pennsylvania or Illinois.

A committee was appointed, consisting of Drs. McGovern, Hitz and Seaman, of Milwaukee, Evans of La Crosse, Noer, of Stoughton, Pelton, of Waupaca, and the Secretary, to investigate this matter as far as other states are concerned, and formulate a plan, which will be sent to every Councilor and to the Secretary of each Society, to be presented to the County Societies for a referendum vote, to ascertain whether the county societies will consent to an increase of $1.00 in the annual dues, to get the advantage of this medical defense.

We also passed a resolution in regard to insurance fees; that it is the sense of the State Society that no life insurance examination, including urinalysis, should be made for less than $5, and no fraternal examination for less than $2; and we recommended that action be taken by the county societies to the same effect.

The President elected for the ensuing year is Dr. Wm. E. Ground, of Superior; first Vice-President, Dr. Byron M. Caples, of Waukesha;

second Vice-President, Dr. Herman Gasser, of Platteville; third Vice-President, Dr. E. S. Hayes, of Eau Claire.

The next place of meeting is Milwaukee.

Another matter which is important, was in regard to the readjustment of several counties that have straggled away from the fold. This year six or seven counties have not reported because they have not got enough members to form a society; and the idea is to still further concentrate by joining each of these counties with some other county or counties, and so we have done that.

We received 56 reports altogether this year, and by this readjustment the number of County Societies will be reduced to 54, and we will get 54 reports next year. Every County is now somewhere and under somebody's charge.

The following resolution was introduced:

WHEREAS, in 1886 the State Medical Society of Wisconsin, recognizing the value of scientific preparation for the study of medicine, suggested that there be established at the University of Wisconsin a special practical pre-medical course; and,

WHEREAS, this course was at once established at that time, and has been extended to meet the growing demands for training in the basal sciences; and,

WHEREAS, the scope of the institution, with the addition of the departments of pharmacology and pathology, can be made to include the first two years of the medical curriculum;

Resolved, that the State Medical Society of Wisconsin heartily endorses the action of the state legislature in establishing a college of medicine at the University of Wisconsin, and the proposed plan of the regents to develop the important departments of pharmacology and pathology.

Motion made and carried, adopting the resolution.

PRESIDENT:—I will appoint Drs. Sarles, Dodd and Barnett as a committee to introduce our new President.

The committee last appointed then escorted President-elect Ground to the platform.

DR. SARLES:—I take great pleasure in introducing Dr. W. E. Ground, of Superior, as the incoming president.

The retiring president, Dr. L. H. Pelton, then greeted the incoming president and said:

Doctor, I greet you. It gives me pleasure to congratulate you as the incoming president. As the retiring president of the State Medical Society of Wisconsin, I assure you that it gives me great pleasure to see the mantle of office fall upon your worthy shoulders.

We have had a successful meeting, a delightful time, and I wish to thank the committee of arrangements, our worthy secretary, and each and every one of the chairmen of the different committees who have so kindly and ably assisted me.

Again I congratulate you and feel and know that you as my successor will be superior.

DR. J. M. DODD, of Ashland:—I move a vote of thanks to the Doctors and citizens of Superior, to be extended by a rising vote.

Unanimously carried by rising vote.

PRESIDENT-ELECT, DR. WILLIAM E. GROUND:—Mr. President and Colleagues: To be elected to preside over a body like the State Medical Society of Wisconsin, is no ordinary compliment. To say I appreciate the honor from my heart, is putting it lightly; in fact, words fail utterly to express the deep sense of gratitude I feel toward my friends in the medical profession. I fear I may be deficient in executive ability, but I will do my best, and if I can keep the standard up to that attained by my immediate predecessor and those before him, I will be satisfied. I will not attempt to make a speech now, and will take advantage of the fact that the incoming president is not expected to deliver his address until next meeting.

DR. W. T. SARLES:—Mr. President, on behalf of the Society I move a rising vote of thanks to the past president for the able manner in which he has presided, to the secretary and the stenographer for their efficiency, and to others who have assisted in making this meeting a success.

Motion seconded and carried by a rising vote.

DR. HERMAN GASSER of Platteville:—I move the Society adjourn.

Motion seconded and unanimously carried.

PROCEEDINGS OF THE COUNCIL.

SUPERIOR, WEDNESDAY, AUG. 21st, 1:30 P. M.

The Council was called to order by the chairman.

There were present: Drs. Sarles, Boothby, Nye, Windesheim, Dawley, Evans, Armstrong, Dewey, Hall and Sheldon.

On motion the meeting was adjourned to 8:30 A. M., Aug. 22d.

THURSDAY, AUG. 22, 8:30 A. M.

The Council was called to order by the chairman.

There were present: Drs. Evans, Boothby, Nye, Dodd, Windesheim, Dawley, Armstrong, Dewey, Hall and Sheldon.

Dr. C. R. Bardeen, of Madison, was appointed delegate to the Council on Medical Education A. M. A. and expenses authorized.

The expenses of delegate to the A. M. A. Council on Medical Education were authorized.

A committee, consisting of Drs. Boothby, Dodd and Sheldon, was appointed to readjust the arrangement of medical societies throughout the State, with the view of greater concentration, and the assignment of every County now organized to some society, involving also a readjustment of the boundaries of the several Councilor Districts.

Meeting adjourned to 1:30 P. M.

AUG. 22, 1:30 P. M.

Meeting was called to order by the chairman. Proceedings of the previous meeting read.

There were present Drs. Windesheim, Nye, Evans, Boothby, Dodd, Armstrong, Dawley, Hall and Sheldon.

On motion the Treasurer's report was referred to an auditing committee composed of Drs. Dodd and Armstrong.

The committee reported the account as correct and their report was accepted and adopted.

The committee to readjust the County Societies and the Councilor Districts made a report as follows:

The Committee recommend the following new County Societies to be formed:

Ashland-Bayfield-Iron Medical Society.
Barron-Polk-Washburn-Sawyer-Burnett Medical Society.
Price-Taylor-Rusk Medical Society.
Oneida-Forest-Vilas Medical Society.
Marinette-Florence Medical Society.

Kewaunee-Door Medical Society.
Green-Lake-Waushara-Adams Medical Society.
Dunn-Pepin Medical Society.
Trempealeau-Jackson-Buffalo Medical Society.
They recommend the following Councilor Districts:

1. Dodge-Washington-Jefferson-Waukesha. H. B. Sears, Beaver Dam, Councilor.

2. Racine-Kenosha-Walworth. G. Windesheim, Kenosha, Councilor.

3. Rock-Green-Dane-Sauk-Columbia-Marquette. F. T. Nye, Beloit, Councilor.

4. La Fayette-Grant-Iowa-Richland-Crawford. Wilson Cunningham, Plattville, Councilor.

5. Manitowoc-Calumet-Sheboygan-Fond du Lac. J. V. Mears, Fond du Lac, Councilor.

6. Outagamie-Winnebago-Brown-Kewaunee-Door. C. J. Combs, Oshkosh, Councilor.

7. Trempealeau-Jackson-Buffalo-La Crosse-Monroe-Juneau-Vernon. Edward Evans, La Crosse, Councilor.

8. Marinette-Florence-Oconto-Shawano. T. J. Redelings, Marinette, Councilor.

9. Lincoln-Portage-Clark-Wood-Marathon-Waupaca-Green Lake-Waushara-Adams. D. L. Sauerhering, Wausau, Councilor.

10. Barron-Polk-Washburn-Sawyer-Burnett-St. Croix-Dunn-Pepin-Chippewa-Pierce-Eau Claire. E. L. Boothby, Hammond, Councilor.

11. Ashland-Bayfield-Iron-Douglas-Price-Taylor-Rusk-Oneida-Forest-Vilas-Langlade. J. M. Dodd, Ashland, Councilor.

12. Milwaukee-Ozaukee. A. T. Holbrook, Milwaukee, Councilor.

On motion the Secretary was directed to send to each Councilor and County Secretary, a detailed statement of changes in County Medical Societies and Councilor Districts, with a map of the Councilor Districts as readjusted.

FRIDAY, AUG. 23, 8:30 A. M.

The Council was called to order by the chairman.

There were present: Drs. Boothby, Windesheim, Dodd, Dawley, and Sheldon.

There being no quorum present, the annual reorganization was postponed till the annual meeting in Jan. 1908.

On motion adjourned.

C. S. SHELDON., *Secretary.*

PROCEEDINGS OF THE HOUSE OF DELEGATES.

Meeting called to order August 21st, 1907, 3 P. M., by the President, Dr. L. H. Pelton, of Waupaca.

PRESIDENT:—The House of Delegates will come to order. The first order will be the roll call by the secretary.

There were present the following: Barron County—I. G. Babcock, Cumberland; Dodge County—G. W. Dewey, Burnett; Dane County—Julius Noer, Stoughton, C. R. Bardeen, Madison; Douglas County—G. Saunders, Superior; Fond du Lac County—S. S. Hall, Ripon; Grant County—C. A. Armstrong, Boscobel; Jefferson County—W. A. Engsberg, Lake Mills; Kenosha County—H. J. Stalker, Kenosha; La Crosse County—E. Evans, La Crosse; Langlade County—G. H. Williamson, Antigo; Manitowoc County—E. Gates; Milwaukee County—J. J. McGovern, Milwaukee; Monroe County—W. T. Sarles. Sparta; Oconto County—R. L. Williams; Outagamie County—Abrams, Appleton; Rock County—L. F. Bennett, Beloit; Sauk County—Fred Johnson, North Freedom; Shawano County—W. B. Eicher, Bonduel; St. Croix County—E. L. Boothby, Hammond; Vilas County—A. B. Rosenberry, Arbor Vitae; Washburn County—J. P. Cox, Spooner; Washington County—C. Bossard, West Bend; Waukesha County—Hugo Philler Waukesha; Waupaca County—G. T. Dawley, New London; Winnebago County—G. R. Barnett, Neenah.

Motion carried that Dr. Hall act as delegate.

On motion Dr. E. Gates was allowed to represent Manitowoc Co. as proxy.

Motion carried naming R. L. Williams as proxy for Oconto Co.

On motion, Dr. Abrams was named as proxy for Outagamie Co.

Motion carried appointing E. L. Boothy of Hammond, as delegate for St. Croix Co.

On motion, Dr. G. T. Dawley was appointed delegate from Waupaca Co.

DR. W. T. SARLES, of Sparta: In view of the large number of absentees in the house of delegates and also in the council, and in view of the fact that we have no right under the constitution to elect any member not a delegate or an alternate to this body, I move that the rules be suspended at this meeting and the foregoing members be elected delegates and councilors *protem.*

Seconded and unanimously carried.

PRESIDENT:—The next order of business is the report of delegates to the American Medical Association.

The committee reported as follows:

"We, the undersigned, delegates to the A. M. A. Meeting at Atlantic City, N. J., June 4 to 7, 1907 inclusive, submit the following report:

This meeting was the second largest in attendance ever held by the Association, the largest in attendance being the year previous at Boston, when some four thousand seven hundred registrations were had. This meeting showed a total registration of over three thousand seven hundred, being nearly

one thousand more than at any previous meeting except the one above mentioned in Boston. Wisconsin had but thirty-five members registered, which, owing to the distance, was a fairly good showing. However, when the Association meets in Chicago in June, 1908, Wisconsin members will be expected to turn out in force and swell the attendance in excess of any previous record it has ever made as a state. Each year shows advanced standings in the work of the different sections as well as a more thorough organization of the profession throughout the country. No especial changes were adopted affecting the auxiliary bodies, such as our own, other than is mentioned in the report of the "Reference Committee on Reports of Officers," which we think worthy of incorporation in this report, as it points the way for future advancement. It is as follows:

(a) Medical Education.

We endorse opposition to the course of certain physicians in organizing or conducting incompetent medical schools, and we believe that the moral weight of this Association, together with the publicity which will eventually follow the work of the Council on Medical Education, will secure the proper uplifting of medical education in the United States. The honest activity of the various boards of examiners, co-operating with the Council, will be of inestimable value in securing this result.

(b) Council on Pharmacy and Chemistry.

We most earnestly commend the work of the Council on Pharmacy and Chemistry and the President's views thereon, and we commend to the Board of Trustees the further and permanent continuance of this work. We most strongly recommend that the members of this Association confine their prescriptions to articles contained in the United States Pharmacopoeia, the National Formulary, or such as have been approved by the Council on Pharmacy and Chemistry.

(c) Fees for Life Insurance.

We endorse the report of the Insurance Committee and believe that a minimum fee of five dollars for life insurance examinations is just and fair, and we deprecate the organized effort of certain companies to compel the acceptance of a lesser fee. While it would seem desirable for county societies to take cognizance of this matter, we further deprecate the exercise of any harsh or coercive measures directed against individual members. We also agree with the view that present differences will eventually be amicably adjusted. We concur in the recommendation that the committee be discharged.

(d) Reference Committees.

We endorse the recommendation referring to committees, and recommend that the various reference committees be appointed two months in advance of the annual meeting, and that the reports be referred to these committees early enough for consideration. Amended before adoption. See A. M. A. Journal, June 15, page 2057.

II. REPORT OF GENERAL SECRETARY.

We sincerely commend, and heartily approve, the work of the General Secretary as set forth in his report, and we believe that the growth of the Association and the development of *THE JOURNAL* and its plant are largely, if not entirely, due to his indefatigable efforts.

III. REPORT OF THE BOARD OF TRUSTEES.

Any organization or corporation transacting business can only be successful so long as its affairs are conducted in a careful and up-to-date businesslike manner, and it is with pleasure that we note the essentially thorough and businesslike manner in which the trustees have conducted the affairs of this Association. We believe that the statement of audit is sufficiently definite and comprehensive, and that to make public further and more intimate business details would be unwise and poor business policy. We consider the publication of the American Medical Directory, the compilation of data relative thereto, and of the graduation and licensure of physicians in the United States, undertakings of the greatest value to the Association and to the entire medical profession; and we consider the financial status of this portion of the Association work to be eminently satisfactory.

IV. REPORT ON ORGANIZATION.

We recommend that Dr. J. N. McCormack be requested by the Trustees to continue his most valuable work with the profession, and the laity, in this country.

(a) In the matter of the proposed postgraduate work, we recommend that the Trustees appropriate six hundred dollars for this purpose.

(b) We consider that active work in county societies is of the greatest value to the medical profession of this country, and we earnestly recommend that every effort be made to stimulate interest and activity in county society work.

In the matter of the proposed branch associations, we recommend that this report on branch associations be referred to the state associations by the General Secretary, with an urgent request for an expression of their views, to be presented to this Association at the next annual meeting.

We offer the following:

Whereas, The Council on Pharmacy and Chemistry, after examining many hundreds of preparations, has officially announced its approval of a large number of such preparations; and

Whereas, We believe that the editors of many medical journals in this country, both official organs of State Associations and privately owned journals, are desirous of co-operating in the work of freeing the medical profession from the nostrum control; therefore, be it

Resolved, That this Association most earnestly requests all medical journals to refuse to aid in promoting the sale of preparations which have not been approved by the Council by refusing advertising space to such preparations; and be it further

Resolved, That we most earnestly request the moral and financial support of our members for those medical journals, whether privately owned or controlled by medical organizations which disregard commercialism and stand firm for honesty and right dealing, thus sustaining the Council in its greatest work for the medical profession.

In conclusion, your committee believes that all of the officers of this Association have served it well and faithfully, and we, therefore, move the adoption of the following:

Resolved, That the thanks of the Association be extended to the President, the General Secretary, the Board of Trustees and other officers for their valuable and efficient services."

Adopted by House of A. M. A. Delegates.

W. T. SABLES, *Wisconsin Delegate.*
B. M. CAPLES, *Wisconsin Delegate.*

On motion made and seconded, report was unanimously accepted and placed on file.

PRESIDENT:— The next order of business will be the report of the Chairman of the Council, Dr. E. L. Boothby, of Hammond.

Dr. Boothby presented the report as follows:

Mr. President, and Gentlemen of the House of Delegates:

I endeavored to have a report from each district ready to-day, and have quite a considerable number of them—I think as many as we usually have. I asked each councilor to summarize the reports of the county secretaries and make a separate and distinct report of his district in general, so that I could get at it by districts, and report to you the condition of the different districts as a whole, but I have not been able to get complete reports.

I have reports here from the 1st, 2nd, 3rd and 4th, and Dr. Sheldon has the 5th, also from the 6th, 7th, 9th and 10th—nearly all of them—and I want to call the attention of the House of Delegates to one thing, and I think I will do it now, and that is, the completion of the organization—not completed the first year, 1903-04—of the district societies. We have been trying to complete the organization of the district societies, composed, as you very well know, of all the county societies in any district, so that we can comply with the constitution of the state society, and elect your officers constitutionally. We have never yet been able to elect all the officers of the State Society according to the constitution of the State Society, which says that the vice-presidents of the State Society shall be elected from the presidents and past presidents of the District Society; that all the vice-presidents of the District Society are the presidents of your County Societies; so you see how one dovetails into another.

I want to suggest to the councilors of the 5th, 6th and 8th districts that they could form these three districts into one district society, and cover the territory now occupied by the Fox River Valley Medical Society.

E. L. BOOTHBY, Hammond
Chairman Council.

FIRST COUNCILOR DISTRICT.

Dr. Sears of the 1st, reports as follows:

Beaver Dam, Wis., Aug. 17, 1907.

My Dear Dr. Boothby:

The Medical Society of the 1st District was organized July 15th, 1907.

Officers as follows: President—H. B. Sears, Beaver Dam; Vice-president—B. M. Caples, Waukesha; Secretary—Dr. Miller, Oconomowoc.

	1906	1907
District Membership		
Membership by Counties:		
Dodge	30	32
Jefferson	23	28
Washington	14	16
Waukesha	41	36
	108	112

The falling off in Waukesha is owing to two deaths and four removals.

A very large percentage of eligible physicians are now members of our county societies. A few who are now outside, could be brought in if properly approached. The work of obtaining new members is left almost entirely to the secretary. Our condition is far from ideal. Membership in our county societies has not worked the transformation we had hoped. The organization seems to be a very loose one. Those who have professional pride and who have the spirit of loyalty, are, as heretofore, always on hand and ready to help. The indifferent and perverse, however, have not as yet been touched. The one lags as usual, and the other feels little or no restraint. It seems as though there were two things, at least, which should have our immediate and undivided attention: 1. Incorporating in our state society every feature possible that will aid or advantage members individually, and thus strengthen our hold upon them. 2. The establishing of healthful discipline, which alone can give respect and selfrespect, which is so much needed, if anything like ideal harmony is to be worked out. Numbers alone can not continue to satisfy us, for at some critical moment we may find our ranks depleted and defeat our portion.

Let us then make every effort to extend reciprocity between states, and, if possible, at *this session*, add protection against malpractice suits.

It is humiliating to be obliged to admit that the ordinary doctor is selfish and selfseeking and does not have much professional pride, or feel any particular obligation to his chosen profession. However, this view is sometimes forced upon us. It is the state society's duty *first* to make overtures, showing her good will and interest, and making the doctor feel he is receiving aid and advantages which could come to him from no other source. He now becomes attentive and wishes to maintain close and firm relationship. Can we not now say to him; just a moment! The *state society* is endeavoring to benefit *you* in every possible way and is trying to encourage *you* to make the most of yourself; this she is doing without stint. In return for this, she requires *only* that you shall be manly, fair and square in your professional life. This will not disadvantage you in the least, or detract in any way from your success, but will surely enhance your prestige with your community, your profession and your own conscience.

Thus, with mutual interests and mutual needs, we may be able to compromise differences to greater advantage, and the possibility of raising all to higher planes of living will be greatly increased.

Our strength is in our harmony, and harmony can be *maintained* only as we are rallied around a standard embodying all that is noble, just and true. Thus may our society give character and dignity to itself and its members and we shall all become proud of her and she of us.

Cordially,

H. B. SEARS,
Councilor, Beaver Dam.

SECOND COUNCILOR DISTRICT.

Dr. Windesheim, of the 2nd district has summarized his report of that district. As you know, that has been organized into a district society for a number of years. His report is as follows:

Kenosha, Wis., Aug. 15, 1907.

Summary yearly Report for Second District:

Total present membership in District	83
Loss by death	2
Removals	4
Net gain	15

Number of non-affiliated about 37, mostly irregulars.

Kenosha County with a gain of 12. Loss by death 1. Net gain of 11, claims the *banner* of *net increase.*

Number of meetings neld:

Walworth County 4. Papers read 14. Attendance 7-19, average 15. Councilor present at 2 meetings.

Racine County 3. Papers read 10. Attendance 7-14, average 9. Councilor present at 2 meetings.

Kenosha County 10. Papers read 14. Attendance 8-18, average 12. Councilor present at 10 meetings.

Increased interest in scientific work and great improvement in profes sional and fraternal spirit.

District Society has held three yearly meetings, each well attended, last meeting attendance 41. Next meeting some time this coming fall.

President first three years Dr. H. C. Reynolds, Lake Geneva.

President for current year, Dr. W. A. Fulton, Burlington.

Respectfully submitted,

G. WINDESHEIM,
Councilor Second District.

I hold that report of Dr. Windesheim up as a most excellent report of a most worthy officer. It covers the whole ground for that district.

THIRD COUNCILOR DISTRICT.

The 3rd district, Dr. F. T. Nye, of Beloit, Councilor, embracing the territory formerly covered by the Wisconsin Central Medical Society, reports a total of 181 members, with a loss of 14. I have not time to look through the report, as it is just handed in; but I wish the councilors would summarize and make their report as Dr. Windesheim has, which covers it very nicely.

The report is as follows:

REPORT OF DANE COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 85.

2. Number members in good standing (annual dues paid), August 10, 1907? 72.

3. Loss? 13. Gain?

4. Number profession in county eligible and non-affiliated? 15.

5. Why? Answer fully and suggest methods toward affiliation?

6. Number meetings held from August 10, 1906, to August 10, 1907? 26.

7. Average attendance? About 25. Greatest? 36. Least? 14.

8. Number papers read? Two each meeting, none at two special meetings.

9. Do you hold regular meetings and how often do you meet? Yes, Second Tuesday each month.

10. Do you print annual or semi-annual programs, or one for each meeting separately? One for each meeting but it includes next meeting ahead.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? 8 P. M.

12. Has there been an increased interest in the scientific work of the Society the past year? I think so.

13. Has the professional and fraternal spirit improved? Yes.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? One.

16. Dates and places of meetings for coming year? City Library, Madison, Wis. Second Tuesday each month.

17. Report all deaths and removals in Society for past year? C. E. Johnson, Madison. W. F. Lindsay, Madison to Chamberlain, S. D. C. P. Farnsworth, Madison to ?. D. W. Wheelwright, Bellville to Seattle, Wash.

Stoughton. JULIUS NOER, *Secretary.*

REPORT OF GREEN COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 30.

2. Number members in good standing (annual dues paid), August 10, 1907? Twenty-three (23). Forty-six dollars ($46.00).

3. Loss? Several members. Gain? None.

4. Number profession in County eligible and non-affiliated? 6.

5. Why? Answer fully and suggest methods toward affiliation? Some

have never attended, others cannot *spare* time. Too great distance from meeting place. Loss of interest. Personal interview with each individual may do some good.

6. Number meetings held from August 10, 1906 to August 10, 1907? 2.

7. Average attendance? 25½. Greatest? 3. Least? 20.

8. Number papers read? 12.

9. Do you hold regular meetings and how often do you meet? Yes, semi-annually.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Each meeting separately.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? No.

12. Has there been an increased interest in the scientific work of the society the past year? Yes.

13. Has the professional and fraternal spirit improved? Yes, among those who attend.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes, I think he will be present.

15. How many visits has your councilor made you the past year? 1.

16. Dates and places of meetings for coming year? Brodhead in October. Monroe in June.

17. Report all deaths and removals in Society for past year? Three removals. No deaths.

18. Remarks, suggestions, etc. There are five members who have not paid their annual dues, two of whom say they are out for good. The treasurer has tried to collect from them, but failed. Do not know as anything can be done.

Delegate to State Meeting, W. B. Monroe, of Monroe, Wis.

Yours Fraternally,

Brodhead. E. J. MITCHELL, *Secretary*

REPORT OF COLUMBIA COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 25.

2. Number members in good standing (annual dues paid), August 10, 1907? 28.

3. Loss? Gain? 3.

4. Number profession in county eligible and non-affiliated? 14.

5. Why? Answer fully and suggest methods toward affiliation? Cannot say.

6. Number meetings held from August 10, 1906, to August 10, 1907? 1.

7. Average attendance? 15 to 20. Greatest? Least?

8. Number papers read? 1.

9. Do you hold regular meetings, and how often do you meet? Annually.

10. Do you print annual or semi-annual programs, or one for each meeting separately? No.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? 10 to 4.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes.

13. Has the professional and fraternal spirit improved? Yes.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes. Cannot say.

15. How many visits has your councilor made you the past year? 1.

16. Dates and places of meetings for coming year? Portage, January.

17. Report all deaths and removals in Society for past year? None.

18. Remarks, suggestions, etc.

Randolph. A. B. JONES, *Secretary.*

REPORT OF ROCK COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 41.

2. Number members in good standing (annual dues paid), August 10, 1907? 44.

3. Loss? Gain? 3.

4. Number profession in County eligible and non-affillated? About 20.

5. Why? Answer fully and suggest methods toward affiliation?

6. Number meetings held from August 10, 1906, to August 10, 1907? 8.

7. Average attendance? About 14. Greatest? About 30. Least? 8.

9. Do you hold regular meetings and how often do you meet? Each month except summer months.

10. Do you print annual or semi-annual programs, or one for each meeting separately? One for each meeting.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Evening.

12. Has there been an increased interest in the scientific work of the Society the past year?

13. Has the professional and fraternal spirit improved?

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? About 6.

16. Dates and places of meetings for coming year? Beloit, September. Janesville and Beloit alternate monthly hereafter.

17. Report all deaths and removals in Society for past year. Dr. McCabe removed to Minneapolis. Dr. H. O. Rockwell to Minnesota.

18. Remarks, suggestions etc. Three former members are still in arrears.

Beloit. W. W. CROCKETT, *Secretary.*

FOURTH COUNCILOR DISTRICT.

Dr. Cunningham presents a report of the 4th district as follows:

Platteville, Wis., Aug. 10, 1907.

Dr. E. L. Boothby, Chairman Council, Hammond, Wis:

DEAR DOCTOR:—I have received the reports from the different secretaries

of the county societies in my district and as a whole the reports are very encouraging.

1. Number members in good standing (annual dues paid), August 10, 1906? 94.

2. Number members in good standing (annual dues paid), August 10, 1907? 101.

3. Gain? 7.

4. Number of profession in district eligible and non-affiliated? 31. (Will get more of these).

5.

6. Number of meetings held? 19. (Not enough meetings. Lafayette County had but one meeting during the year, and that with Green County.)

7. Average attendance? 8.

8. Number of papers read? 27.

9. Frequency of meetings? Grant 3 per year. Lafayette 1 per year. Richland 1 per month. Crawford 4 per year. Iowa 4 per year.

I have averaged the answers to some of the questions asked in Dr. Sheldon's report blanks. You will see there are 31 non-affiliated members of the profession in the district—more than there should be. We can get some of these men into the societies. There are some old men and some so indifferent they cannot be gotten, and, too, some of the petty jealousies cannot be eradicated, but of the number there are several who can be and must be gotten into the societies.

Since my appointment I have been into Iowa County two or three times and I know it can be improved some in attendance and numbers. Of course the counties of Grant and Iowa are considerably handicapped by railway accommodations—three parallel lines through these counties—without intersection. The number of meetings should be increased in most counties. Lafayette had but one meeting last year and that meeting was with Green County, and next to Grant County they have the largest membership of any county in the district—20 members.

Number of papers read were 27. General average about 5. The answers to this question are a little misleading as some have answered with the understanding that the total for the year is meant, while others understood the number of papers for each meeting was wanted.

I think in general there should be more frequent meetings and fewer papers, with the program for the entire year printed at one time. Also sending out special invitations for each meeting.

In general there has been increased interest in the scientific work of the societies and the improvement of the fraternal spirit has and will depend upon the frequency of the meetings and attendance. With good attendance and frequent meetings (at least 3 a year—better 4 to 6) the scientific and fraternal spirit is bound to improve.

Will talk things over with you next week.

Yours Fraternally,

WILSON CUNNINGHAM,

Councilor Fourth Council District.

Dr. Armstrong and Dr. Cunningham also had the 4th Dist. Society organized at Prairie du Chien, when we had the joint meeting there. So the 4th Dist. is all organized in very good shape.

FIFTH COUNCILOR DISTRICT.

The report from the 5th district is as follows:

The organization in the fifth district, while not what it should be, is in a very satisfactory condition. It is developing and the county societies are improving. I have visited all except the Manitowoc society and find them all doing good work. The average attendance is increasing, and the work done by each society is improving, indeed many of the papers would do credit to larger societies.

The conditions are not ideal. It is true that a few in each society must take the initiative in keeping up the work; this will always be the case, but it takes less effort than formerly to keep up the interest.

Good meetings are now the rule in each county, and the county societies are becoming what they should be; local post-graduate courses. Making better doctors is the paramount object of the organization.

There are a number of men in nearly every county who will join but will not attend meetings, others who will not join. As soon as these men see the benefits of membership and attendance their number will diminish. Some, however, will have to die and be replaced by others before all come in.

If our state society could establish a mutual protection against malpractice suits, I think it would be the means of bringing practically all into the fold, and be a better means of protecting the profession against blackmail than the insurance we are now obliged to carry.

Calumet is the banner county of this district, and, I think, of the state, every man but one being a member, and he, an applicant.

Sheboygan County has led the district in the matter of insurance examinations. It has secured the signature of nearly every man in the county refusing to examine for less than five dollars.

Our district meetings are well attended.

G. V. MEARS,
Councilor for Fifth District.

REPORT OF JUNEAU COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 11.

2. Number members in good standing (annual dues paid), August 10, 1907? 12.

3. Loss? Gain? 1.

4. Number profession in County eligible and non-affiliated? 9.

5. Why? Answer fully and suggest methods toward affiliation? Impossible to get them interested in the society.

6. Number meetings held from August 10, 1906, to August 10, 1907? 1.

7. Average attendance? 7. Greatest? 7. Least? 7.

8. Number papers read? 4.

9. Do you hold regular meetings and how often do you meet? Annually.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Annual this year.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Think not.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes.

13. Has the professional and fraternal spirit improved? No.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? None.

16 Dates and places of meetings for coming year? December 3. Place not decided.

17. Report all deaths and removals in Society for past year?

18. Remarks, suggestions, etc.

Elroy. A. T. GREGORY, *Secretary.*

SIXTH COUNCILOR DISTRICT.

The report from the 6th district is as follows:

Berlin, Wis., Aug. 17, 1907.

Dr. E. L. Boothby, Chairman of Council.

DEAR DOCTOR:—Reports from all counties in the Sixth District, except Waupaca County, indicate a fair condition of prosperity in the organization.

Dr. Pelton can report conditions in Waupaca County. I will not compile these reports as it would only be a repetition of what Dr. Sheldon will have.

If I am able to be present at the Superior meeting I will give my suggestions verbally.

That your zeal and earnestness and the hard work you have done may result in the successful meeting it deserves is my best wish.

Very truly,

J. S. WALBRIDGE.

REPORT OF GREEN LAKE-WAUSHARA COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 26.

2. Number members in good standing (annual dues paid). August 10, 1907? 27.

3. Loss? None. Gain? 1.

4. Number profession in County eligible and non-affiliated? About 8.

5. Why? Answer fully and suggest methods toward affiliation? Most of those are in distant part of Waushara County where it is difficult to meet with us. Have written personal letters. Would suggest letters be sent them occasionally from headquarters.

6. Number meetings held from August 10, 1906, to August 10, 1907? 3.

7. Average attendance? 8. Greatest? 15. Least? 5.

8. Number papers read? 6.

9. Do you hold regular meetings and how often do you meet? Quarterly.

10. Do you print annual or semi-annual programs, or one for each meeting separately? For each separate meeting.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Middle of day is better on account of train service.

12. Has there been an increased interest in the scientific work of the Society the past year? No.

13. Has the professional and fraternal spirit improved? In Berlin, yes. In some neighboring towns fraternal spirit is lacking.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes. Have not heard from our delegate positively.

15. How many visits has your councilor made you the past year? Attended one meeting.

16. Dates and places of meetings for coming year? Not arranged.

17. Report all deaths and removals in Society for past year? Deaths: C. M. Willis, M. D., R. D. Fuller, M. D. Removals: J. V. May, M. D., Red Granite to London, England, for special course in eye and ear.

18. Remarks, suggestions, etc.

Berlin. B. E. SCOTT, *Secretary.*

REPORT OF OUTAGAMIE COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 36.

2. Number members in good standing (annual dues paid), August 10, 1907? 36.

3. Loss? None. Gain? None.

4. Number profession in County eligible and non-affiliated? 10.

5. Why? Answer fully and suggest methods toward affiliation? I do not know. All have received repeated invitations.

6. Number meetings held from August 10, 1906, to August 10, 1907? 5.

7. Average attendance? 19. Greatest? 33. Least? 9.

8. Number papers read? 10.

9. Do you hold regular meetings and how often do you meet? Bimonthly since March this year. Quarterly before that.

10. Do you print annual or semi-annual programs, or one for each meeting separately? This year have been printing for each meeting; before this annually.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Afternoon meetings have been the rule.

12. Has there been an increased interest in the scientific work of the Society the past year? There has always been a good interest.

13. Has the professional and fraternal spirit improved? Always good.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Delegate and alternate have been elected, one will be there.

15. How many visits has your councilor made you the past year? None.

16. Dates and places of meetings for coming year? September 3, Hortonville, November 5, Appleton January 7, Kaukauna, March 4, Appleton, May 5, Seymour, July 6, Union meeting with Winnebago County. Probably.

17. Report all deaths and removals in Society for past year? Dr. F. W. Jones and Dr. Perie Comerford of Appleton died. Dr. L. A. Weaver and Dr. J. O'Connell of Welcome and Dr. R. W. Williams of Dale removed from County.

18. Remarks, suggestions, etc.? We had a most pleasant and profitable joint meeting with the Winnebago County Medical Society at Neenah in July and will repeat next year.

Appleton. M. J. SANDBORN, *Secretary.*

REPORT OF WINNEBAGO COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? Forty-five members. Ninety dollars.

2. Number members in good standing (annual dues paid), August 10, 1907? Forty-five members. Ninety dollars.

3. Loss? None. Gain? None.

4. Number profession in County eligible and non-affiliated? 19.

5. Why? Answer fully and suggest method toward affiliation? Don't know.

6. Number meetings held from August 10, 1906, to August 10, 1907? Four.

7. Average attendance? 20. Greatest? 30. Least? 6.

8. Number papers read? 10.

9. Do you hold regular meetings and how often do you meet? Quarterly.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Separately.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Evening.

12. Has there been an increased interest in the scientific work of the Society the past year. No.

13. Has the professional and fraternal spirit improved? No.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? None.

16. Dates and places of meetings for coming year? Oshkosh.

17. Report all deaths and removals in Society for past year. Dr. Howard, deceased. Dr Midgley and Dr. Blemitt, removed.

18. Remarks, suggestions, etc."

Oshkosh. JAMES C. SCHALL, *Secretary.*

SEVENTH COUNCILOR DISTRICT.

The report from the 7th district, lacks the report from Vernon and La Crosse, and is as follows:

REPORT OF TREMPEALEAU-JACKSON COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 15.

2. Number members in good standing (annual dues paid), August 10, 1907? 14.

3. Loss? 1. Gain? None.

4. Number profession in county eligible and non-affiliated? 19.

5. Why? Answer fully and suggest methods toward affiliation? Three applications are in now and will be acted upon at our next meeting.

6. Number meetings held from August 10, 1906, to August 10, 1907? Three.

7. Average attendance? 6. Greatest? 10. Least? 3.

8. Number papers read? 3.

9. Do you hold regular meetings and how often do you meet? Quarterly.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Programs for each meeting.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Late in the afternoon.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes.

13. Has the professional and fraternal spirit improved? Yes.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? He is in Europe.

15. How many visits has your councilor made you the past year? None.

16. Dates and places of meetings for coming year? Not fixed.

17. Report all deaths and removals in Society for past year. Dr. Jos. Rittenberger removed to Milwaukee. Dr. S. E. Hutchins of Independence has left.

18. Remarks, suggestions, etc.

Galesville. HENRY A. JEGI, *Secretary.*

REPORT OF MONROE COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906?

2. Number members in good standing (annual dues paid), August 10, 1907? 24 or 26 (see below).

3. Loss? Reordan. Gain? Allen, Lewis, Hauker, Merrill.

4. Number profession in county eligible and non-affiliated? Hill & Reordan, Millegan.

5. Why? Answer fully and suggest methods toward affiliation? Lack of interest.

6. Number meetings held from August 10, 1906, to August 10, 1907? One.

7. Average attendance? 20. Greatest? Least?

8. Number papers read? One.

9. Do you hold regular meetings and how often do you meet? No.

10. Do you print annual or semi-annual programs, or one for each meeting separately? No.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Evening preferable in Sparta.

12. Has there been an increased interest in the scientific work of the Society the past year?

13. Has the professional and fraternal spirit improved? Doubtful.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15 How many visits has your councilor made you the past year? One.

16. Dates and places of meetings for coming year? Not appointed.

17. Report all deaths and removals in Society for past year?

18. Remarks, suggestions, etc. Drs. Smith and Simonson probably have paid dues to State Secretary.

Sparta. CARL M. BEEBE, *Secretary.*

EIGHTH COUNCILOR DISTRICT.

The report from the 8th district is as follows:

"Marinette, Wis., Aug. 20, 1907.

Dr. E. L. Boothby, Superior, Wis.

DEAR DOCTOR:—In relation to the counties in my district I have to say that I have just written Dr. Chas. Sheldon at Superior and enclose two reports received to-day. Kindly ask to see my letter and reports sent to him. I fully expected to leave for Superior this morning—circumstances over which I have no control, forbid. Hope you will have a rousing good meeting. I regret not being able to be with you. Fraternally,

T. J. REDELINGS, *Councilor Eighth District.*"

"Marinette, Wis., Aug. 20, 1907.

Dr. Chas. Sheldon, Superior, Wis.

DEAR DOCTOR:—I find this morning that I shall be unable to get away for the Superior meeting. A great disappointment to myself. The counties in my district in which there are a sufficiently large number of physicians to maintain a county society, are doing good work. Marinette, Brown and Shawano, especially. Forest and Florence are weak in numbers and have been unable to keep the county sociable, and railroad facilities are such that the men are slow to join adjoining counties. Door County is blocked by disaffection at Sturgeon Bay; Oconto has not been running smoothly—the real cause was not apparent; at my last visit to Oconto there were not a sufficient number present to hold a meeting. Only two local and one man from the county districts. The best spirit prevails at Shawano County. Kewaunee and Door County, as I understand it, were taken from my district at the Milwaukee meeting, and Shawano and Forest added. I enclose you a statement to cover my expense. Hoping that you will have a good meeting, I am

Fraternally,

T. J. REDELINGS.

P. S.—I enclose you two reports received to-day. Kindly return them."

NINTH COUNCILOR DISTRICT.

The report from the 9th district is as follows:

"Wausau, Wis.

At a meeting of the Northwestern Wisconsin Medical Society, held at Stevens Point in May, 1907, a resolution to make this Society the official Ninth Councilor District Medical Society was adopted and officers elected as follows:

President—Dr. C. von Neupert, Jr., of Stevens Point.

Secretary—Dr. P. McKittrick, of Thorp.

Conforming with the rules governing eligibility as to vice-presidents, all the presidents of the County Societies comprising this Ninth Councilor District were declared elected vice-presidents.

This Ninth Councilor District Society held a meeting at Waupaca on July 19, jointly with the Waupaca County Medical Society. This meeting was well attended, papers were read and a general discussion engaged in by those present.

As to the general condition of affairs in the Ninth District, I report that the organization movement is well supported by all those taking an active

interest in society proceedings and the welfare of the profession in general. There have been a few delinquencies by non-payment of dues, but no real defections unless a single case might serve for the same, an instance where the narrow road of medical ethics has been abandoned for the broad and easy stages of the renegade. That such a motive is at the bottom of such resignation is illustrated by the fact that a written and signed agreement not to enter into any contract work of any kind whatever was repudiated.

Portage County reports 17 active members.

Lincoln County reports 13 active members.

Clark County reports 14 active members.

Waupaca County reports 20 active members.

Wood County reports 14 active members.

Taylor County reports 7 active members.

Marathon County reports 24 active members.

There are a few delinquents in nearly every county, back in payment of dues, and I have no doubt but that the majority will remit in time so that the district will hold its own.

D. SAUERHERING, *Councilor Ninth District.*"

DR. BOOTHBY:—I do not know how that agrees with the year before, as he makes no comparison.

TENTH COUNCILOR DISTRICT.

In my own district, the 10th, there is a loss of 17, largely owing to the fact that one county society which reported 14 members in 1906, reports 2 this year. There is a loss of 12 right there, and you cannot get them to pay up. They used to be in Dr. Sarles's district. In the entire district there is a membership of 124, whereas a year ago there was a membership of 141. One county has made a gain of 3. Every county except 3 has lost. Pierce has held its own, and my own county, St. Croix, has held its own exactly. Eau Claire has gained 3. Others have all lost some. Pepin and Buffalo have completely gone by the board, for they have not got a quorum left, I do not know as they ever will have. I do not know what to do with them.

DR. SARLES:—Put them into Adams County.

DR. BOOTHBY:—I do not know what to do with them unless you join Buffalo with Trempealeau and Jackson counties, and put Pepin with Eau Claire or Dunn. They do not like to hitch together, and besides that, they are so jealous of the fellows on the other side, and if they had a society of their own they say they would do better.

We are a little behind this year, and it is going to be pretty hard work to pick up these lost, straggling members, and if I have a word of advice to give, it is to be careful whom you elect secretary of every county society. Any old thing will do for president or vice-

president, but your secretary must be energetic, earnest and capable, and a society enthusiast.

The county reports are as follows:

REPORT OF ST. CROIX COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 14.

2. Number members in good standing (annual dues paid), August 10, 1907? 14.

3. Loss? None Gain? None.

4. Number profession in county eligible and non-affiliated? 5. Beside 2 others without a license at last report—3 of them have been proposed for membership.

5. Why? Answer fully and suggest methods toward affiliation? Of the 5—two or perhaps 3 are not friendly towards some of the members—possibly it's vice versa.

6. Number meetings held from August 10, 1906, to August 10, 1907? Eight.

7. Average attendance? 7⅝. Greatest? 13. Least? 3.

8. Number papers read? Eleven. (Also clinics and discussion of subjects not presented by papers or clinics.)

9. Do you hold regular meetings and how often do you meet? Regular, but not every month. Seven meetings in 1907 arranged for.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Annual program prepared at each annual meeting.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? The latter part of the afternoon is the most convenient for Hudson, where most of the meetings are held.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes, decidedly.

13. Has the professional and fraternal spirit improved? Not markedly.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Elected—but cannot vouch for his attendance all the session.

15. How many visits has your councilor made you the past year? Has attended every meeting since organization.

16. Dates and places of meetings for coming year? September, October and December only prepared for—new program in December.

17. Report all deaths and removals in Society for past year. No deaths or removals from county.

18. Remarks, suggestions, etc. I would beg to suggest that the secret of a successful County Society is possessed only by the right man for secretary, who will see that a yearly program is prepared for adoption according to the constitution, and that the members be held strictly up to the work. Work, and plenty of it for each and all, is the only cure for envy and jealousy which is the curse of many county societies.

Hammond. E. L. BOOTHBY *Secretary.*

REPORT OF EAU CLAIRE COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 25.

2. Number members in good standing (annual dues paid), August 10, 1907? 28.

3. Loss? None. Gain? Three. Two have come in since Aug. 10.

4. Number profession in county eligible and non-affiliated? One.

5. Why? Answer fully and suggest methods toward affiliation? Just come to town. Will put in application at next meeting.

6. Number meetings held from August 10, 1906, to August 10, 1907? Ten.

7. Average attendance? 14. Greatest? 24. Least? Five.

8. Number papers read? 12.

9. Do you hold regular meetings and how often do you meet? Once a month.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Both.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Yes.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes.

13. Has the professional and fraternal spirit improved? Yes.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? One.

16. Dates and places of meetings for coming year? New Club House when finished. Last Monday evening of every month.

17. Report all deaths and removals in Society for past year? None.

18. Remarks, suggestions, etc. The Elk's Club Room, where we have been holding meetings has closed. Temporarily out of meeting place till Club House is finished.

Eau Claire. E. L. MASON, *Secretary.*

REPORT OF PIERCE COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 18.

2. Number members in good standing (annual dues paid), August 10, 1907? 18.

3. Loss? None. Gain? None.

4. Number profession in county eligible and non-affiliated? Seven.

5. Why? Answer fully and suggest methods toward affiliation? Some say we have formed a monopoly to charge higher prices. Therefore will not join.

6. Number meetings held from August 10, 1906, to August 10, 1907? Four.

7. Average attendance? 5. Greatest? 8. Least? 3.

8. Number papers read? One. Mostly general discussion at meeting.

9. Do you hold regular meetings and how often do you meet? Quarterly when we can get a quorum.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Not always. Have done so for a few times, but as it seems to be of no use we do not do so.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? No.

12. Has there been an increased interest in the scientific work of the Society the past year? No.

13. Has the professional and fraternal spirit improved? No.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? I think so.

15. How many visits has your councilor made you the past year? Two.

16. Dates and places of meetings for coming year? Have none.

17. Report all deaths and removals in Society for past year. H. W. Lane gone to California for health. F. G. Swedenberg gone to Ashland, Oregon, to take up work in a sanatorium.

18. Remarks, suggestions, etc. I do not know what to say. I have done my best but it seems that most of our M. D.'s live so far away that it is an effort for them to meet; most of the M. D.'s live from 12 to 20 miles apart, and I suppose it is very much of an effort for them to get away.

Ellsworth. D. C. MUNGER, *Secretary.*

REPORT OF DUNN COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 20.

2. Number members in good standing (annual dues paid), August 10, 1907? 18.

3. Loss? 2. Gain? None.

4. Number profession in county eligible and non-affiliated? Six.

5. Why? Answer fully and suggest methods toward affiliation? Indifference, account of difficulty of attending meetings due to distance, etc.

6. Number meetings held from August 10, 1906, to August 10, 1907? Seven.

7. Average attendance? 6. Greatest? 11. Least? 5.

8. Number papers read? Five.

9. Do you hold regular meetings and how often do you meet? Monthly.

10. Do you print annual or semi-annual programs, or one for each meeting separately? Annual.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? 5 P. M. best.

12. Has there been an increased interest in the scientific work of the Society the past year? No.

13. Has the professional and fraternal spirit improved? Yes.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? Two.

16. Dates and places of meetings for coming year? Menomonie, 3d Tuesday of each month, 5 P. M.

17. Report all deaths and removals in Society for past year. G. J. Finstad died in April. L. W. Berry of Knapp moved.

18. Remarks, suggestions, etc.

Menomonie. F. E. BUTLER, *Secretary.*

REPORT OF BARRON-RUSK-POLK COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 31.

2. Number members in good standing (annual dues paid), August 10, 1907? 29.

3. Loss? 2. Gain? None.

4. Number profession in county eligible and non-affiliated? Three.

5. Why? Answer fully and suggest methods toward affiliation? Don't know; some are too stingy to join.

6. Number meetings held from August 10, 1906, to August 10, 1907? Four.

7. Average attendance? 14. Greatest? 20. Least? 10.

8. Number papers read? 16.

9. Do you hold regular meetings and how often do you meet? Yes, quarterly.

10. Do you print annual or semi-annual programs, or one for each meeting separately? For each meeting.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? Yes.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes.

13. Has the professional and fraternal spirit improved? Yes.

14. Has your delegate been elected for 1906, and will be surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? One.

16. Dates and places of meetings for coming year? Not arranged.

17. Report all deaths and removals in Society for past year. G. W. Field removed to Colorado Springs, Col. O. M. Porter removed to Minnesota.

18. Remarks, suggestions, etc.

Rice Lake. O. M. SATTRE, *Secretary.*

REPORT OF CHIPPEWA COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906?

2. Number members in good standing (annual dues paid), August 10, 1907? 15.

3. Loss? 2. Gain? None.

4. Number profession in county eligible and non-affiliated? Eight.

5. Why? Answer fully and suggest methods toward affiliation? Don't seem to have use for any societies.

6. Number meetings held from August 10, 1906, to August 10, 1907? Four.

7. Average attendance? 10. Greatest? 12. Least? 10.

8. Number papers read? Four.

9. Do you hold regular meeting and how often do you meet? Three times a year?

10. Do you print annual or semi-annual programs, or one for each meeting separately? No. No programs printed.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day? No.

12. Has there been an increased interest in the scientific work of the Society the past year? Yes.

13. Has the professional and fraternal spirit improved? Not much.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? Yes.

15. How many visits has your councilor made you the past year? One I think.

16. Dates and places of meetings for coming year? Stanley and Chippewa Falls. No dates set.

17. Report all deaths and removals in Society for past year.

18. Remarks, suggestions, etc. The profession is certainly dead in Chippewa county. It seems that some are members for the honor of it as they never atterd the meetings.

Stanley. J. M. CUNNINGHAM, *Secretary.*

REPORT OF PEPIN-BUFFALO COUNTY MEDICAL SOCIETY.

1. Number members in good standing (annual dues paid), August 10, 1906? 16.

2. Number members in good standing (annual dues paid), August 10, 1907? 2.

3. Loss? 14. Gain?

4. Number profession in county eligible and non-affiliated? 15.

5. Why? Answer fully and suggest methods toward affiliation? Lack of interest.

6. Number meetings held from August 10, 1906, to August 10, 1907? One.

7. Average attendance? 8. Greatest? 8. Least? 8.

2. Number papers read? None.

9. Do you hold regular meetings? No. And how often do you meet? Occasionally.

10. Do you print annual or semi-annual programs, or one for each meeting separately? No. No.

11. Can you meet late in the afternoon or evening to better advantage than earlier in the day?

12. Has there been an increased interest in the scientific work of the Society the past year? No.

13. Has the professional and fraternal spirit improved? No.

14. Has your delegate been elected for 1907, and will he surely be at the State meeting? (?)

15. How many visits has your councilor made you the past year?

16. Dates and places of meetings for coming year? None.

17. Report all deaths and removals in Society for past year. M. B. Axtells, Pepin, Wis., died Aug. 2, 1907. W. E. Anderson, Mondovi, Wis., moved to South Dakota.

18. Remarks, suggestions, etc.

Durand. W. W. CASSIDY, *Secretary.*

ELEVENTH COUNCILOR DISTRICT.

The report of the 11th district is as follows:

The situation of the Eleventh Councilor District has not changed materially since last year.

Much difficulty is experienced in keeping up the interest in the smaller county societies, and the ultimate solution of the problem will be to combine several counties in societies of two or more counties each. This lessens the representation in the House of Delegates for the district, a feature which I had hoped would induce all the counties to maintain separate organizations.

While the reorganization has not proved to be all that we hoped for it, there is no doubt that it has been a move in the right direction and productive of much good to the profession and to every member.

While the number of physicians has remained about the same in this district, there have been some changes in the personnel but not in the high medical standard of the members; there has been no falling off of members of the State Society.

The greatest difficulty to be encountered is the indifference of the physicians to all efforts thus far made to get them to County, District or State Medical meetings.

Our first duty at this time is to find out the cause and the remedy for this indifference.

J. M. DODD, Ashland, *Councilor.*

TWELFTH COUNCILOR DISTRICT

The report of the 12th district is as follows:

Brule, Douglas County, Wis., 16 Aug., 1907.

Dr. Boothby, Chairman Council.

DEAR SIR:—I regret to report that I have not before me the actual figures and must generalize in stating the condition of the 12th district.

Although the treasurer's book showed a large list of delinquents in the payment of dues, the fact is not significant of a loss of membership, in my belief, because a glance at the names shows a list of men who may be relied upon although they follow the pace our patients so often set us in paying debts.

Milwaukee County is well organized, has attractive and well attended meetings, and shows a *spirit* of professional unification as well as a *fact* of association. Individual interests in Medical Colleges or University courses may make an apparent jar; but it is only a jar, not a break—and a jar often does more good than harm.

The conditions at Sauk are satisfactory from a professional standard; but geographic conditions, in my belief, make it impossible for a strong organization to be maintained there.

Respectfully submitted,

A. T. HOLBROOK, *Councilor 12th District."*

The Treasurer's Report was then presented, was referred to the Council, was returned with the following endorsement on it: "We have this day examined the within report and vouchers pertaining thereto and find the same to be correct. J. M. Dodd, Charles A. Armstrong, Aug. 22, 1907. Finance Committee,"—was returned to the delegates, accepted and placed on file. It is as follows:

TREASURER'S REPORT.

Superior, Wis., Aug. 21, 1907.

S. S. HALL, treasurer, in account with the State Medical Society of Wisconsin.

Debtor.

Balance on hand, June 26, 1906		$ 3,486.07
Received from Committee of Arrangements, 1906	$ 3.44	
Legislative Fund	83.75	
Old dues	20.00	
Secretary, from County Societies	3,017.00	$ 3,124.19
Total		$ 6,610.26

Creditor.

1906.	WISCONSIN MEDICAL JOURNAL.		
July 6		$ 153.90	
Aug. 7		145.00	
Sept. 17		143.80	
Oct. 8		144.70	
Nov. 8		145.30	
Dec. 10		146.40	
1907.			
Jan. 8		146.30	
Feb. 7		147.20	
March 9		147.50	
April 10		149.10	
May 9		153.80	
June 14		155.70	
July 13		157.10	
Aug. 12		157.20	$ 2.093.00
1906.	COUNCILOR'S EXPENSES.		
June 27.	W. T. Sarles	18.50	
	J. M. Dodd	30.00	
	G. Windesheim	17.09	
	H. B. Sears	8.40	
June 28.	E. L. Boothby	10.00	
	F. T. Nye	28.88	
	A. J. Patek	7.50	
	D. Sauerhering	14.98	
July 2.	S. S. Hall	4.84	
Nov. 19.	E. L. Boothby	28.02	
Dec. 28.	C. A. Armstrong	20.00	

1907.			
Jan. 16.	J. S. Walbridge	5.65	
	G. V. Mears	11.70	
	D. Sauerhering	37.21	
	E. L. Boothby	20.80	
	S. S. Hall	4.84	
April 10.	E. L. Boothby	10.60	279.01
1906.	GENERAL EXPENSES.		
June 28.	G. E. Seaman, delegate	74.00	
	C. S. Sheldon, expense	87.62	
	J. H. Musser, expense	71.00	
July 2.	C. S. Sheldon, sec'y, salary bal. 1905-6, $100; on account 1906-7, $200	300.00	
	S. S. Hall, treas., salary 1906-7	125.00	
July 21.	H. D. Goodwin, stenographer, account July 15, 1906	208.00	
Dec. 14.	Tracy, Gibbs & Co., Printing and Stat	100.20	
1907.			
Aug. 12.	Am. Med. Ass'n, account Aug. 9, 1907	3.50	969.32
1906.	LEGISLATIVE COMMITTEE.		
July 12.	Bennett, Churchill & Bennett, bal. account		100.00
	Total		$ 3,441.33
	Balance on hand		3,168.93
			$ 6,610.26

Respectfully submitted.

SIDNEY S. HALL, *Treasurer.*

DR. S. S. HALL, of Ripon (treasurer):—I will state that the report really covers 14 months, as far as our expenses are concerned, especially with reference to the expense of the WISCONSIN MEDICAL JOURNAL, on account of our meeting being so much later this year than usual, which makes our expenses about $300 more than they would be for the 12 months, and shows a decreased balance in the treasury that would not be shown if we had held our meeting at the usual time. That will probably right itself next year.

The secretary's report was then presented as follows:

SECRETARY'S REPORT FOR 1907.

The Secretary begs leave to submit the following report for 1907:

We have now completed the fourth year under our present plan of organization, and are able to avail ourselves of so much more of experience in determining its feasibility and what may be its measure of success in the future. We are gradually learning a number of things, but, perhaps the most impressive fact so far is, that to maintain our organization unceasing vigi-

lance and continuous effort will be needed for all time. In other words, the machine is not *automatic*. Like many other systems, it is all right if it is thoroughly worked out. But we are gradually discovering the weak points, and will doubtless, in time, be able to overcome most of them. Upon the whole, the note is quite decidedly one of encouragement rather than the opposite.

At the last annual meeting 59 county societies had sent in their annual reports,—each with an organization in varying degrees of vitality. This year the number of societies, reporting to date, is somewhat less, since those with sufficient animation to collect the dues and send in a report at all, is but 56. This loss is accounted for as follows: Buffalo-Pepin has reported but *two* renewals in place of *thirteen* last year, and so is marked a failure. Door (7), Iron (3) and Ozaukee (6) have made no report. As an offset, Taylor, which had made no report at the time of the last meeting, but which subsequently reported 5, sends in a list of 4 this year. This makes a net loss of *three* county societies. As to these 4 counties which have failed, Iron (3) naturally belongs to Ashland and will be so disposed of. If Door (7) is found to be unable to maintain itself, it should be joined to Kewaunee under the charge of the joint secretary. In Buffalo-Pepin and Ozaukee we hope to be able to resuscitate the organization later on. In both these societies the *great*, and practically the *only* need is an active and efficient secretary capable of *doing* something. Nevertheless, this experience puts a new emphasis on what we have learned before, *viz.:* that it is a poor policy to attempt to maintain separate organizations in counties with a very small number of physicians, usually widely separated. As a rule, no meetings, to speak of, are held, and it is a constant and desperate effort to maintain an organization of any kind. Such counties should uniformly be united with some adjoining county, thus making it possible to secure a membership sufficiently large to make a respectable society, with the joint secretary in charge.

Our year's added experience only more forcibly emphasizes *another* thing which we knew before, that in every society, the character and efficiency of its secretary is the only factor—or by far the most important—worth considering. With a *good* secretary, success is as good as assured,—with a *poor* one, failure, or the next thing to it, is pretty certain. Since this is the fact, it is obviously our duty, as practical men, to devise some scheme whereby the poor secretaries shall be eliminated, and their places taken by *good* ones. A partial solution of the problem might be to place the power of confirmation or rejection, in the hands of the council or in that of the councilor of the district and the general secretary—their action to be confirmed by the council. At any rate, such a plan would emphasize the importance of selecting the right sort of a man for secretary, and in case of the re-election of an incompetent man, it would be possible to reject him. I wish the House of Delegates would consider the question with a view to possible action.

This is not an indictment of the county secretaries as a body. Since a majority of them are doing splendid work and are getting better every year. A very few, however, seem to have no capacity, or inclination, to do a single thing in connection with their official position. The inevitable result is—no meetings—no work—no life—no members. *Somebody* must push, and it must be the secretary.

MEDICAL DEFENSE.

A number of the state and local societies have recently adopted a plan of medical defense—several others have the question under consideration. The states which have already adopted the plan are New York, Illinois, Pennsylvania, Maryland and Nebraska. All the states which have made a trial of the plan are enthusiastic in its favor. If the plan is practicable, the advantages are obvious. The expense is much less than the insurance companies would charge for the same protection. The moral effect, in unifying and harmonizing the profession, would be well worth considering. As a factor in building up the county societies and increasing the inducements for membership, it would be invaluable. It is also in direct line with the spirit and aim of this Reorganization Movement. Where it has had a trial it has worked well. In Pennsylvania there have been no suits to defend. In New York there have been about 50 suits commenced in the whole state, but no damages have as yet been assessed against a member. This is also true in Illinois, where the plan has been in operation 4 years. In these states it has been found especially efficacious in suits which are practically black-mail. When a shyster lawyer undertakes the case for one-half the damages, when he finds he has to fight the whole State Society—to a finish—with lawyers opposed to him much better than himself, he speedily discovers that "discretion is the better part of valor." Then, too, it helps organization, especially in the sparsely settled districts, when it is difficult to maintain or attend medical societies, and where the member feels that perhaps he is not getting the worth of his money. We can in this way offer him something tangible and valuable. Dr. H. N. Moyer, of the Illinois Defense Committee, writes: "The effect on the organization of our society has been admirable. The defense fund has operated to increase our membership and led to a prompter payment of the annual dues. The members feel that they receive an equivalent for the payments." Dr. Townsend, secretary of the New York Medical Society, writes: "I think it is the best thing that we can give our members, and it certainly appeals to them." In New York the expenses of defense are paid from the funds of the society. In Illinois they have paid all expenses and have accumulated a fund of $1,800 from an assessment of $1.00 per member yearly. If medical defense is to be adopted by this society, the plan should be thoroughly digested, and I would suggest that a committee be appointed to report on the subject at the next annual meeting.

The usual blank with enquiries regarding the year's work, was sent to the county secretaries and 50 replies have been received. These replies vary greatly, of course, according to the conditions existing in the various counties and the temperaments of the secretaries. Some are hopeful and even enthusiastic, while others bemoan the lack of interest and co-operation in the profession and feel that this medical society business is uphill work. On the whole, the reports are encouraging and show progress as compared with former years. Of the 56 societies, 31, or over one-half, are apparently doing good work, with regular meetings and sustained interest. Perhaps a dozen more are doing *fair* work, while the rest meet once a year to elect officers and collect dues. This is as well as we can expect at present, and is certainly a great improvement over the old plan.

MEETINGS.

During the year two societies have held 12 meetings, one 11, three 10, five 8, two 7, two 6, four 5, fifteen 4, five 3, and five 1. The average attendance at the meetings in all the counties is 10½. The average number of papers read is 6½. In reply to the question if the interest in the scientific proceedings of the society had increased, 28 say "yes," 18 say "no," while 4 think there is no change. As to the improvement in the professional and fraternal spirit 35 say "yes," 9 say "no" and 6 think it is about the same, or are doubtful. These replies may not be very reliable, but they indicate, in a way, the drift of things. As before, the reasons for non-affiliation are the usual ones—sectarianism, indifference, personal jealousies, distance from place of meeting, and difficulties in attending, etc. The remedies are quite obvious even if they are not so easily applied.

MEMBERSHIP.

Of the 56 counties reporting, comparing those which have paid dues for 1907 with the total membership of 1906, 23 have increased in membership, 23 have lost, while 10 have remained the same. This showing is not as good as last year, when 34 increased their membership over the total of the previous year, and only 17 lost. The largest gains have been in Kenosha 11, Jefferson and Rock 5, and Eau Claire, Langlade, Richland and Crawford 3 each. The greatest loss is in Milwaukee 10, Sauk and Winnebago 6, Waukesha 5, and Fond du Lac, Dane, Wood and Marathon 4 each. The present membership, those who have paid the 1907 dues and so reported, is 1,456. At the last annual meeting it was 1.434,—a gain of 21. The total membership of 1906 was 1,497, a gain of 63 during the year, and within 3 of the 1,500 predicted in last year's report. According to these figures the total membership of the year 1907 will be about 1,525.

THE COUNCIL.

Judging from the county reports the council does not yet embrace its high opportunities, nor prove itself to be the active and interested body it is theortically supposed to be; outside of the counties where the councilors live but 30 visits have been made during the year. An average of 2½ for each councilor district. Perhaps in a majority of counties these visits are not needed, but in the weak ones very much could be done by the councilors in the way of organization and encouragement.

Two meetings of the council have been held—both in Milwaukee, at which reports were received, and plans for carrying on the work were discussed. The resignation of Dr. C. A. Armstrong, Councilor of the 4th District, was accepted, and Dr. Wilson Cunningham of Platteville appointed in his place.

PUBLICATION.

In accordance with the action of the society at the last meeting the WISCONSIN MEDICAL JOURNAL has been official organ of the Society during the year, and this seems the most desirable plan for the future. Under the efficient management of Drs. Patek and Dearholt it meets abundantly every requirement as a medical journal for the publication of our transactions, and the doings of the county societies. The secretary would recommend the

COUNTY	Membership.	Membership August 21, 1907	Eligible and Non-affiliated.	Number of Meetings	Average Attendance	Number of Papers.	Councilor's Visits	Scientific Interest and Professional Spirit		Interval of Meetings
Ashland	20	20 (—)	2	4	8	8	—	no	yes	monthly
Barron-R-P.	31	29 (— 2)	3	4	14	—	1	yes	yes	quar.
Bayfield	6	7 (+ 1)								
Brown	30	30 (—)	?	5	10	4	0	no	yes	fortn'ht
Buffalo-Pepin	13	2 (—11)	15	1	8	0	—	no	no	occasio'l
Calumet	19	18 (+ 1)	1	4	7	4	1	yes	yes	quar.
Chippewa.	15	15 (—)	8	4	10	4	1	yes	slight	3 in year
Clark	13	13 (—)	8	2	5	—	1	no	no	quar.
Columbia-V	28	29 (+ 1)	14	1	20	1	1	yes	yes	a'nually
Crawford	9	12 (+ 3)	7	3	9	8	2	yes	yes	quar.
Dodge	30	33 (+ 3)	3	7	8	17	7	no	yes	reg.
Dane	85	82 (— 3)	15	12	25	24	1	yes	yes	monthly
Door	7	1 (— 6)								
Douglas	25	24 (— 1)								
Dunn	21	18 (— 2)	6	7	6	5	2	no	yes	monthly
Eau Claire	27	30 (+ 3)	1	10	14	12	1	yes	yes	monthly
Fond du Lac	45	41 (— 4)	12	5	12	17	6	yes	yes	bi-mon.
Grant	38	40 (+ 2)	15	3	11	7	2	no	yes	3 in year
Green	25	23 (— 2)	6	2	23	12	1	yes	yes	semi-an.
Green Lake-W.	26	27 (+ 1)	8	3	8	6	1	no	yes	quar.
Iowa	11	12 (+ 1)	4	4	5	5	none	yes	no	quar.
Iron	3	1 (— 2)								
Jefferson	23	28 (+ 5)	3	4	12	10	1	no	yes	quar.
Juneau	12	12 (—)	9	1	7	4	none	yes	no	an'ually
Kenosha	21	29 (+ 8)	7	10	12	14	reg.	yes	yes	monthly
Kewaunee	6	7 (+ 1)								
La Crosse	28	29 (+ 1)	—	8	...	6	1	no	yes	monthly
LaFayette	21	19 (— 2)	1	1	10	4	none	no	yes	an'ually
Langlade	7	10 (+ 3)	3	4	7	4	1	yes	yes	bi-mon.
Lincoln	15	14 (— 1)	3	1	7	1	none	yes	yes	monthly
Manitowoc	24	26 (+ 2)	3	4	10	5	1	no	no	quar.
Marathon	28	24 (— 4)	13	6	12	3	6	no	yes	4 in year
Marinette	13	14 (+ 1)	14	6	13	12	6	yes	yes	bi-mon.
Milwaukee	267	257 (—10)		12	70	16	10	yes	yes	monthly
Monroe	25	25 (—)		1	20	1	1	no	yes	———
Oconto	11	8 (3)	11	5	7	6	none	no	yes	bi-mon.
Oneida	7	9 (+ 2)	4	4	4	5	none	yes	yes	?
Outagamie	36	36 (—)	10	5	19	10	none	yes	yes	bi-mon.
Ozaukee	6	(—)								
Pierce	18	18 (—)	7	4	5	1	2	no	no	quar.
Portage	18	16 (— 2)	6	2	12	4	1	yes	yes	quar.
Price	7	6 (1)								
Racine	26	25 (1)	20	3	9	10	3	no	?	reg.
Richland	18	21 (+ 3)	5	8	6	0	yes	yes	yes	monthly
Rock	42	46 (+ 4)	—	8	12	23	8	——	——	monthly
Sauk	18	12 (6)	19	0	3	—	none	no	no	———
Shawano	16	18 (+ 2)	0	4	10	8	1	yes	yes	quar.
Sheboygan	26	28 (+ 2)	18	11	11	5	1	yes	yes	monthly
St. Croix	14	14 (—)	5	8	7	11	—	yes	no	7 in year
Taylor	5	4 (— 1)	1	—	—	—	—	——	——	———
Trempealeau J.	15	14 (— 1)	19	3	6	3	none	yes	yes	quar.
Vernon	15	13 (— 2)								
Vilas	3	2 (1)	5	0	—	—	none	——	——	———
Walworth	28	30 (+ 2)	10	4	15	14	2	yes	yes	quar.
Washburn-S-B.	11	8 (— 3)	16	3	8	6	2	yes	?	2 in year
Washington	14	16 (+ 2)								
Waukesha	40	35 (5)	13	8	8	8	none	no	yes	monthly
Waupaca	22	20 (2)	8	2	8	4	none	no	yes	quar.
Winnebago	51	45 (— 6)	19	4	20	10	none	no	no	quar.
Wood	20	16 (4)								

continuance of the contract made last year. County secretaries are urged to send in reports of meetings more fully and more freely. The publication of these reports not only affords information which is valuable and necessary, but it is a stimulus and encouragement to those taking a part in the meetings.

As before said, this showing is not as good as last year, but there is no fall back, but on the other hand a consistent increase. I think this is true not only as regards numbers, but also in spirit and efficiency. If this be true after 4 years of trial I can see no good reason why it should not be equally so after 8 or 10 years. Probably it is unreasonable to expect a permanent increase as large as the first 2 or 3 years. The 1,500 members in the Society include a large majority of the best men in the state, leaving no more than 400 or 500 of the regular profession, who are eligible, unaffiliated. It is probable that the limit will be reached at 1,600 or 1,700 under any circumstances.

The following is a list of deaths and removals:

REMOVALS.

Stanton Allen of Milwaukee to Oregon; G. F. Andrews of Shell Lake to Birnamwood, Wis.; L. W. Anderson of Bayfield to Ashland, Wis.; G. C. Bowe of Fond du Lac to Richmond, Va.; G. N. Brazeon of Fond du Lac to Oshkosh, Wis.; J. A. Ballard of La Crosse to Galesburg, Ill.; L. W. Berry of Knapp to Hamilton, Mont.; R. W. Blumenthal of Oconomowoc to Milwaukee, Wis.; M. T. Blewett of Oshkosh to Fond du Lac, Wis.; A. T. Blackley of Hayward to Klamath Agency, Oregon; M. C. Crane of Weyauwega to Osseo, Wis.; J. T. Corbett of Weyauwega to Wauwatosa, Wis.; Jas. Cox of Clyman to Jefferson, Wis.; F. P. Dohearty of Butternut to Appleton, Wis.; E. S. Elliott of Lena to Fox Lake, Wis.; Otho Fiedler of Milwaukee to Athens, Wis.; Louis Falge of Reedsville to Manitowoc, Wis.; H. F. Goetsch of Abbotsford to Medford, Wis.; C. P. Farnsworth of Madison to South Dakota; G. A. Howard of Columbus to Indiana; H. T. Hoag of Potter to West Allis, Wis.; D. W. Hogue of Darlington to Ohio; John Harding of Hudson to place unknown; A. R. Hull of Oconomowoc to Colorado; T. H. Hay of Milwaukee to Stevens Point, Wis.; R. H. Henry of Muscoda to Tiskilwa, Ill.; J. T. Soucier of Bruce to Manitoba, Can.; L. J. Rhoades of Fond du Lac to Arizona; J. W. Powell of Rosendale to Arizona; F. C. Wood of Hancock to Westfield, Wis.; E. K. Morris of Algoma to Merrill, Wis.; G. E. Thompson of Green Bay to Kenosha, Wis.; F. W. Luhmann of Manitowoc to Nebraska; Donald McIntyre of Dale to Munkegan, Mich.; W. F. McCabe of Beloit to ——; H. O. Rockwell of Beloit to ——; C. L. Storey of Hayward to Whitehall, Wis.; W. J. Pinkerton of Eagle River to Michigan; Carl Stubenvoll of Tigerton to Oshkosh, Wis.; J. V. May of Red Granite to London, England; H. R. Simon of Sturgeon Bay to North Dakota; A. C. Lucas of Wausau to ——; H. E. Levin of North Lake to Spring Valley, Wis.; J. P. McMahon of Union Grove to Milwaukee, Wis.; J. E. McGovern of Potosi to Highland, Wis.; T. J. O'Leary of Huskin to East Troy, Wis; J. Sutherland of Brodhead to ——; H. G. Mertens of Washburn to Bayfield, Wis.; Geo. Pomainville of Grand Rapids to ——; T. Sandbo of Whitehall to Lemon, S. Dak.; I. A. Meyers of Deerfield to Madison, Wis.; F. P. Klahr of Horicon to Ohio.

The following deaths have occurred in the membership of the Society:

DEATHS.

W. R. Cheever, Kenosha, Aug. 30, 1906; J. H. McNeel, Fond du Lac, Jan. 23, 1907; A. B. Newton, Bangor, June 6, 1906; H. Conover, Crivitz, Oct. 3, 1906; J. T. Reeve, Appleton, Nov. 14, 1906; H. D. Fuller, Seymour, Mar. 20, 1907; J. A. Rice, Merton, Aug. 29, 1906; A. Z. Howard, Oshkosh, Feb. 24, 1907; C. R. Head, Albion, June 19, 1906; Edmond Kovats, Milwaukee, June 15, 1906; O. H. Arndt, Oconto Falls, June 16, 1906; John Dyer, Reedsburg. Oct. 8, 1906; J. E. Brown, Milwaukee, 1906; D. G. Hathaway, Wauwatosa, Nov. 14, 1906; M. H. Fisk, Wauwatosa, Dec. 2, 1906; F. W. Jones, Appleton, 1906; W. H. Rowe, Waukesha, Feb. 4, 1907; R. G. Kratsch, Milwaukee, Jan. 22, 1907; H. E. Berger, Racine, Jan. 2, 1907; F. F. Mayham, Fond du Lac, Jan. 21, 1907; F. C. Segelke, Milwaukee, Feb. 3, 1907; Adolph Sontag, Milwaukee, Feb. 2, 1907; G. A. Blakeley, Albany, 1905; C. M. Willis, Berlin, April 4, 1907; F. R. Weber, Milwaukee, July 18, 1907.

CHARLES S. SHELDON, *Secretary.*

Motion made, seconded and carried that the report be referred to the Council, and it was so referred.

Several communications were referred to the Council.

The House of Delegates appointed 3 members on the Council, so as to fill out a quorum, there being only 4 here,—Dr. Armstrong to represent the 4th district, Dr. Dewey the 1st, and Dr. Dawley, the 9th.

Dr. L. H. Pelton was elected a delegate to the American Medical Association, and Dr. G. Windesheim was elected his alternate, Dr. W. T. Sarles, and Dr. B. M. Caples holding over.

The appointment of a Committee on Scientific Work was deferred until the election of the incoming president.

Motion made, seconded, and carried, re-electing the former Committee on Public Policy and Legislation, consisting of Drs. A. W. Gray, O. H. Foerster and I. G. Babcock.

Dr. John J. McGovern, in the absence of any report from this committee this year, gave a brief report of what had been done.

He said that 3 bills passed the legislature last winter, one preventing the advertising in any newspaper in Wisconsin, of any diseases pertaining to the sexual organs; and since the 1st of July there has been no advertisement in the newspapers in Wisconsin along that line.

One of the bills prohibited the newspaper from taking the advertisement, and the other prohibited any one from doing any advertising of that character.

And a third bill embodied the Indiana law regarding a definition of medicine.

Great progress has been made the past winter in regard to medical legislation.

Two Councilors were elected, one from the 5th, Dr. J. V. Mears; Dr. J. R. Barnett was elected from the 6th, but withdrew, and Dr. C. J. Combs of Oshkosh was elected from the 6th.

Dr. W. T. Sarles of the 7th district tendered his resignation, which was accepted, and Dr. Edward Evans was elected in his place.

A nominating committee, consisting of one member from each councilor district was elected as follows:

1st Dist., Dr. Hugo Philler of Waukesha; 2nd Dist., H. J. Stalker of Kenosha; 3rd Dist., L. F. Bennett of Beloit; 4th Dist., C. A. Armstrong of Boscobel; 5th Dist., S. S. Hall of Ripon; 6th Dist., H. W. Abraham of Appleton; 7th Dist., Edward Evans of La Crosse; 8th Dist., W. B. Eicher of Bonduel; 9th Dist., G. T. Dawley of New London; 10th Dist., I. G. Babcock of Cumberland; 11th Dist., Geo. Saunders of Superior; 12th Dist., H. B. Hitz of Milwaukee.

Motion was made, seconded and carried, that a committee of 3 members, consisting of the secretary, the retiring president, and Dr. J. J. McGovern, constitute a committee to report at the next annual meeting upon the suggestion of the secretary as to a protective policy.

Recess until 8:30 A. M. next day.

WEDNESDAY, AUGUST 22, 1907.

Meeting called to order by the President at 8:30 A. M.

Roll call was as follows: Barron Co.—I. G. Babcock, Cumberland; Dodge Co.—G. W. Dewey, Burnett; Dane Co.—Julius Noer, Stoughton; C. R. Bardeen, Madison; Douglas Co.—Geo. Saunders, Superior; Fond du Lac Co.—S. S. Hall, Ripon; Grant Co—C. A. Armstrong, Boscobel; Jefferson Co.—W. A. Engsberg, Lake Mills; Kenosha Co.—H. J. Stalker, Kenosha; La Crosse Co.—E. Evans, La Crosse; Manitowoc Co.—E. Gates; Milwaukee Co.—J. J. McGovern, Milwaukee; Monroe Co.—W. T. Sarles, Sparta; Outagamie Co.—Abrams, Appleton; Price Co.—A. D. Gibson, Park Falls; Rock Co.—L. F. Bennett, Beloit; Sauk Co.—Fred Johnson, No. Freedom; Shawano Co.—W. B. Eicher, Bonduel; St. Croix Co.—E. L. Boothby, Hammond; Washburn Co.—J. P. Cox, Spooner; Waupaca Co.—G. T. Dawley, New London.

There being a quorum present, business was proceeded with.

The minutes of the last meeting were read and approved.

The report of the Council was received, which recommended that the expense of a delegate to the legislative committee of the American Medical Association, to be held at Washington, be paid, and that a delegate be sent.

Dr. G. E. Seaman of Milwaukee was elected as a delegate.

Upon motion duly made, seconded and unanimously carried, the protective insurance committee was enlarged to 7, and the committee as enlarged, is as follows: Drs. G. E. Seaman, J. J. McGovern and H. B. Hitz, of Milwaukee, Edward Evans of La Crosse, Julius Noer of Stoughton, L. H. Pelton of Waupaca, and C. S. Sheldon of Madison.

Dr. Julius Noer presented the following resolution.

Resolved, That the Committee on Medical Defense be and hereby are instructed to prepare resolutions for submission to the county societies for a referendum vote on the question of protective insurance, recommended in Dr. Sheldon's report for 1907. Be it further

Resolved, That in case the vote by the county societies is favorable, then the above named Medical Defense Committee shall be and hereby are empowered and instructed to proceed with the organization of a Medical Defense Association in connection with the State Medical Society and be it further

Provided, That such organization shall not become operative till after the question has been submitted and passed upon by the council of the State Medical Society of Wisconsin at its meeting in January, 1908.

Motion unanimously carried adopting the foregoing resolution.

Motion unanimously carried that the state secretary be instructed to correspond with the secretary of the American Medical Association, to learn how many members in Wisconsin retain membership in the American Medical Association who are not members of the county societies, or the state society.

Recess until 8:30 A. M., August 23rd, 1907.

AUGUST 23d, 1907, 8:30 A. M.

Meeting called to order by the President.

Roll call as follows; Present:

Ashland County—J. M. Dodd; Barron County—I. G. Babcock, Cumberland; Dodge County—G. W. Dewey, Burnett; Dane County—C. R. Bardeen, Madison; Fond du Lac County—S. S. Hall, Ripon; Grant County—C. A. Armstrong, Boscobel; Jefferson County—W. A. Engsberg, Lake Mills; Kenosha County—H. J. Stalker, Kenosha; La Crosse County—E. Evans, La Crosse; Monroe County—W. T. Sarles, Sparta; Oconto County—R. L. Williams; Outagamie County—Abrams, Appleton; Price County—A. D. Gibson, Park Falls; Sauk County—Fred Johnson, No. Freedom; Shawano County—W. B. Eicher, Bonduel; St. Croix County—E. L. Boothby, Hammond; Vilas County—A. B. Rosenberry, Arbor Vitae; Washington County—C. Bossard, West Bend; Waukesha County—Hugo Philler, Waukesha; Waupaca County—G. T. Dawley, New London.

Minutes of last meeting read and approved.

SECRETARY (referring to Dr. Noer's resolution on protective insurance):—If we can spend a dollar a year on the basis of medical defense, it would make a tax of $1, and that would cover the matter

of medical defense for the present, and we would have to have a committee of medical defense, and draw up our plan.

TREASURER:—I move that we receive the report of the Committee on Nominations.

The Committee on Nominations presented the following report:

"The Committee on Nominations present the names of the following gentlemen as officers for the ensuing year:

For President:—Dr. W. E. Ground of Superior.

For Vice-President (First):—Dr. Byron McBride Caples of Waukesha.

For Vice-President (Second):—Dr. Herman Gasser of Platteville.

For Vice-President (Third):—Dr. E. S. Hayes of Eau Claire."

Motion made and seconded that the report be adopted.

DR. SARLES:—That report should also state the place of meeting.

DR. ARMSTRONG:—Milwaukee was favored as the place of meeting.

The report of the Committee on Nominations was then unanimously adopted.

DR. SARLES:—I move that Milwaukee be the next place of meeting, and the date be left with the officers of the society, I prefer August or September.

Motion seconded and unanimously carried.

DR. SARLES:—The month ought to be selected and the date advertised in every issue of the journal after January, 1908.

PRESIDENT:—We will now hear the report of the Committee on Laws and Legislation.

DR. FOERSTER:—I would suggest that the report be received in executive session.

PRESIDENT:—It will be so understood.

DR. FOERSTER then presented the annual report of the Committee on Laws and Legislation, in executive session, the report was unanimously accepted and was placed on file.

DR. SARLES:—Regarding this report, I do not know what action the Society will be able to take, not being a member of the legislative committee. The Wisconsin Board of Medical examiners have paid their attorney this year about $2000. for services rendered in special work against quackery in the state. That, of course, does not include the work done by district attorneys, and moneys paid by counties to cover these expenses. Now one difficulty we have when we notify a district attorney of a pending suit, or make complaint against a man

for irregular practice, or for practising without a license, is that the district attorneys are not provided with any fund whereby they can get evidence in a case. If they get the evidence it has got to be done by the board, or they won't undertake it, as a rule; and our laws in this state are 20 years ahead of the people—I mean, the public sentiment is not sufficiently strong in the state of Wisconsin to prosecute a man for quackery, except in exceptional cases, and do it successfully. The average jury does not seem to see any harm in a man being manipulated by a quack, unless drugs are given. They do not think sins of omission are as great as the sins of commission.

The association of district attorneys in this state introduced a bill last year in the Wisconsin legislature (which was killed however), allowing the plaintiff the right of appeal in criminal cases in justice court. Such a measure would be of great assistance in enforcing the laws.

DR. BOOTHBY:—I thought the right of appeal was constitutional.

DR. SARLES:—No, in Congress they passed a law allowing the government the power of appeal, and we want the state to have the same power of appeal; but till then we will be hampered. We are spending money (much more than we have got), and giving a lot of time for nothing; and I move that the council be empowered to settle such parts of the claim referred to in this report, as they are able to do, by making such assessment as they think necessary, on the members of this society.

I move that the council be empowered to make such assessment as they see fit, (not to exceed one dollar per capita), to defray the expenses of the legislative committee.

DR. BOOTHBY (in chair). You have heard the motion that the council be empowered to make such assessment as they see fit, not to exceed one dollar per capita, to defray the expenses of this legislative committee.

DR. FOERSTER:—It may appear when you look over the medical laws, especially in regard to quackery, that the men in the larger cities of this state, where the quack institutions flourish, are the ones who are going to profit by having these men put out of business. But that is not the case. When this Wisconsin Medical Institute, the Reinhard Bros. affair, was closed up, the books of the concern were seized, and more than 90 per cent of their patients from what their records showed, came from outside of the city. It was a surprising thing to find prosperous professional and business men coming into town to be hoodwinked. It seems to me that this is

really a matter that the Society can support, and the expense is not great when it is divided among the whole Society.

DR. BOOTHBY:—I would like to ask Dr. Sarles a question. Is this new definition of the practice of medicine effective in the case of a person like this Summerset quack from my own county?

DR. SARLES:—No, it does not affect such men as the Summerset man and the Moon doctor, and all that class of quacks. They must be prosecuted under the common law for obtaining money under false pretenses. Indiana has made it stick, and it is the only way. It is ridiculous to say that they know anything about medicine, and if you attempt to get after them under any medical law, the jury will laugh at you.

DR. BOOTHBY:—We tried it in St. Croix Co.

DR. SARLES:—But not under that law. You cannot convict such men under the law for practising without a license. The law under which these quacks must be prosecuted is for obtaining money under false pretenses, and that is the course our board will take.

DR. BOOTHBY:—In making a complaint of this kind, to whom do you go?

DR. SARLES:—To the district attorney. The board's duty under the law is to bring to the knowledge of the district attorney cases of violation of the medical laws. Then the district attorney's duty is to prosecute as he sees fit.

DR. WINDESHEIM of Kenosha:—The motion before the house, if I understand it correctly, is that to provide the money the council should be empowered to levy an assessment, in case of necessity, not exceeding one dollar per capita. It might possibly be necessary to exceed the one dollar.

DR. SARLES:—I think under the levy it should not exceed a dollar. If we want more we will get it through private subscription.

DR. WINDESHEIM:—Would it not be better to empower the council to proceed to obtain the necessary funds to defray those expenses?

DR. SARLES:—Any way would be acceptable, of course.

DR. WINDESHEIM:—And not make any such restriction?

SECRETARY:—What means have you of obtaining money for your board?

DR. SARLES:—Just the money paid in by men taking examinations and coming in by reciprocity, and in changing registration certificates for licenses under the law.

SECRETARY:—You have no salary?

A. No.

Q. Nor per diem?

A. We have $5.00 per diem allowed us as members of the board, and actual traveling expenses; but that has to come out of our funds. If it is not in our funds we do not get anything. It has to come out of the funds paid in by the doctors of the state. This money is practically paid in by the physicians of the state—every dollar of it. But the state contemplates that the counties shall do this prosecuting at their expense. The district attorneys are obliged to prosecute in all cases where they think it is justifiable, and charge such expense to the counties. But it is obtaining evidence, and getting special evidence, etc., that they do not use any funds for, and we have to pay for that. And of course all this matter pertaining to perfecting our laws, and our own attorneys for advice and defense work, has got to be paid by the board of medical examiners.

DR. FOERSTER:—I have a communication here, that is rather pertinent, that I forgot to read, addressed to the legislative committee from the attorney for the board.

(Communication read in executive session.)

Dr. Sarles's motion was then unanimously carried.

SECRETARY:—I move that the contract with the WISCONSIN MEDICAL JOURNAL of last year be renewed for the year ensuing.

Motion seconded and unanimously carried.

DR. J. M. DODD of Ashland:—I want to ask the gentlemen present if they know anything about the work of the Public Health Defense League. The series of articles that appeared in *Collier's Weekly*, and some of the other peridicals, seems to have excited a good deal of interest throughout the country, and in New York City there was a league formed for the purpose of keeping up that work, defending the public health, just in the line we are doing, in prosecuting quacks, and seeing that incompetent men are not allowed to practice medicine. Now it seems to me that any move that is made by any organization outside of our profession, ought to receive some recognition, and some encouragement. They have sent out, and sent to me some applications for membership. I sent my membership fee of one dollar, and they asked me to get others. I have not done anything with it, and I would like to ask the gentlemen present if they know anything about it, or if there is anything we can do to help the cause along.

DR. SARLES:—What is it called?

DR. DODD:—The Public Health Defense League.

DR. BOOTHBY:—Dr. Hayes of Eau Claire knows something about it. I have had some talk with him on that subject.

DR. SARLES:—Dr. Harper knows something about it, I think.

DR. DODD:—It is a move outside of the profession, just along the line on which we are moving, and if we can encourage it in any way by taking membership, or otherwise, we ought to do it; and I think we ought to make some recognition of their work.

PRESIDENT:—You might draft a resolution on that subject.

DR. SARLES:—I should like to offer the following resolution, and move its adoption:

***Whereas,* Certain old line life insurance companies insist upon the payment of but $3 for examinations, including chemical examination of the urine, be it**

***Resolved,* That it is the sense of this Society, that no such examination should be made for less than $5.**

Seconded.

SECRETARY:—Do you wish to say anything about assessment insurance companies?

DR. BOOTHBY:—I wish you would incorporate into that a sentence or two expressing the fact, which I believe exists in the mind of almost every doctor, that it is derogatory to the profession to make an examination for these fraternal insurance companies for a dollar. I have positively refused to do it for years.

DR. SARLES:—Since the American Medical Association meeting the Mutual Life and Equitable have restored the rate. They informed us in the committee at Atlantic City, that that was their intention. If you will notice, in our report as delegates to the American Medical Association, this matter is gone over, and our idea was to recommend what we thought was right, but not to make it mandatory. Let the physician understand that this is the feeling of the rest of the profession, and he will come in line, if he is a member. Most of the county societies have made a minimum fee of $2 for assessment insurance examinations; and therefore offer the following resolution: "WHEREAS, examinations have been made for one dollar, which is inadequate for the services rendered, be it

RESOLVED, that the minimum fee of $2 should be charged for the examination of fraternal companies."

The idea is that a minimum fee of $2 should be little enough to receive for assessment insurance, under the requirements.

DR. BOOTHBY:—You don't want anything mandatory, but simply advisory.

PRESIDENT:—Those resolutions are before you.

DR. WINDESHEIM:—I never could see why we should discriminate against old line life insurance companies. They have always paid good fees, $5 and $3. The blanks of all the fraternal insurance companies socalled, that I have ever seen, require the same amount of work as do those of the old line companies, often more; why should we make a discrimination? Why should we say, we will examine this man for $1 or $2, but the other man must pay $5? They say, well, the old line life insurance company pays the fee, and in the other case the applicant pays the fee. But the applicant really pays the fee in all cases, and the insurance company, whether fraternal or any other, will reap the benefit from the number of applicants. If the old line life insurance companies are required to pay $5, the fraternal insurance companies, lodges, etc., unless they have their special physician, should be required to pay the same amount. I have for a number of years refused absolutely to have anything to do with insurance companies, excepting those who paid $5. When they come to me with a blank for examination for fraternal companies, I look over the blank and tell them it is worth $5 to make this examination, and if they do not want to pay that they will have to go somewhere else.

DR. SARLES:—I think it is on the same principle that you charge a rich man $5 for a call sometimes, and a poor fellow $2 or $1. Our fees are on a sliding scale. Our operations are $500 to some who can pay, and $100 or less to others. It depends on the circumstances. Now, assessment insurance is not supposed to carry a reserve fund of any consequence. It is not a rich corporation or institution, and we are not receiving when we receive $5 for examining an old line insurance, more proportionate to their ability to pay, than when we receive $2 for the average assessment insurance examination. If that plan that we must receive just so much irrespective of the client, is adopted, then it must go all the way down the line, and we must charge $100 for every appendectomy, whether the person is a millionaire or not.

DR. S. S. SHELDON of Madison:—We spent 2 or 3 evenings talking about such matters in the Dane Co. Med. Soc., and came to the opinion that $5 was a proper charge for all old line business requiring urinalysis; and the only question was with respect to industrial or fraternal companies, whether the charge should be $2 or $3. Of course, as Dr. Sarles says, a fee of $5 would absolutely make it im-

possible for any business to be secured from the class of men who usually insure in those companies, who are generally working men. After a good deal of discussion, and getting at the minds of the men making those examinations, the younger men, it was their opinion that $2 would be juster all round, than $3.

DR. ARMSTRONG:—There is an entirely different principle in the two cases. The fact, as the Doctor has just stated, that the men who have acquired their competency, are deciding what examination they shall make, is the very one that should influence us in making a difference in examinations. I believe in charging $5 to the old line companies, simply because they are able to pay, as I understand it. It does not come out of the applicant, it comes out of the law of the state under which they operate, allowing them "so much" expense money. I was speaking with the president of a new company, which has been formed in New Jersey, and he says, that the way the New York law is now constituted, the question of how much you can pay for a medical examination will depend on how you are enabled to keep within the limit of the law governing expenses as required by the insurance law of New York. Now, he says, if we find absolutely that we can keep inside of that law and pay you $5, you will get it, everyone of you; but if they put a handicap on us, and compel us to curtail our expenses to a certain amount, we will have to look out as much for medical examinations as for "field-work" expenses, agencies; and that is the question in the old line companies to-day. Two companies say they believe they can pay $5; but that is not what I want to talk on, but it is a matter of fraternal examinations, which are based on an entirely different principle. The different societies represented in the state of Wisconsin at the present time, are under one law. All new fraternal companies that are admitted into the state of Wisconsin, after a certain time have to formulate their assessments according to the National Fraternal Congress rates, and that is a much higher rate, and a rate which none of the societies now doing business in the state of Wisconsin, could stand.

I believe when you are making an examination for a dollar you should not lose sight of the reason why you make that examination for a dollar. It is just as important in every community, that the fraternal society should be kept up by the doctor, as it is that any other source of revenue should be looked after by any other body of men. If you have a little society in your town, in which you can get 30, 40, 50, 60 or 100 men insured for from $1,000 to $3,000 each, every doctor in that little community is assured, that if a man who has

him, you will have some money coming if he dies; and I believe that taken such insurance is taken sick, and you have to doctor and nurse is the principle on which every man should labor for the advancement of fraternal insurance. It is a fact that the man who takes out fraternal insurance would not take out old line insurance. I do not speak of the exceptions to the rule, but the average man in a fraternal society is a wage worker, who will not take out old line insurance. His financial circumstances will not permit it. He can carry from $500 to $3,000, in a fraternal society, and if he dies, his family will have something to pay the doctor, the nurse, the druggist, and the undertaker with. It is a matter of dollars and cents, and I believe that the doctor in each locality should arrange with the Society, and the by-laws of one of the largest societies in this state cover that point, that the fee of the member examined, shall be entirely within the power of the camp, and a doctor does not need to be a camp physician for that society, if he does not want to accept their terms, and if in that locality it seems to be advisable to make the examination for one dollar, I do not call it at all unethical to do so. I make dollar examinations, and I am not ashamed of it. I am doing it for the benefit not only of myself, but every practitioner who treats the people in my community; and I believe it is the right principle. If I can get a society to give me $2, I gratefully receive it. It is no disgrace to make a dollar examination. It is no more disgraceful to make a dollar examination than for any of the great surgeons to make an operation, for which they feel in duty bound to charge $300 or $500 for nothing. They have just as much right to make an operation that you would call a $300 operation for the benefit of humanity, for nothing, as they have to charge $300 for it. It is just as ethical for a man to charge one dollar to make an insurance examination, as it is $5. The matter of saying that you are going to make a poorer examination for one dollar, is an attempt on your part to outrage your own character. No man of decency would say such a thing as that. You know when you take an applicant in your private office to examine him, you are figuring on doing absolutely what the blank requires; and I feel that every man should look at it in that way; and if you make $2 the minimum rate for the fraternal society, all well and good; but I do not believe in making any hard and fast rule for the fraternal societies. They are a benefit to humanity, and in every sense we need them in our community; and we should do everything in our power to advance their interest; and I move you that we take up the matter of the old line part of that report, and that the sense of the Wisconsin State Medi-

cal Society is that $5 should be the fee for the old line examination.

Seconded.

DR. SARLES:—The report has never been made other than this resolution I have offered, and it is made as a separate resolution. Take up the report that I made relating to a $5 fee.

DR. HUGO PHILLER of Waukesha:—In all those cases should not there be a penalty attached?

DR. SARLES:—No, we should not compel them.

DR. PHILLER:—Then you never can make it stick.

DR. SARLES:—Moral suasion goes a long ways.

SECRETARY:—Allow me to suggest that the time for the paper of Dr. Crile will be reached in 7 minutes.

The resolution presented by Dr. Sarles, relating to old line companies was then unanimously adopted.

DR. DODD:—I wish to introduce the following resolution:

Whereas, The Public Health Defense League is an organization formed for the purpose of protecting the health of our people against imposition by quacks and patent medicine concerns, therefore be it

Resolved, That the Medical Society of the State of Wisconsin congratulates the Public Health Defense League and pledges its support in furtherance of these objects.

Motion unanimously carried, adopting the resolution.

DR. ARMSTRONG:—When we get back to our county societies, and they say what is this defense order that you are about to establish in Wisconsin, what will we say? If we had to-day in Wisconsin identically what Illinois has, what would that mean? If I was under that Illinois law, and was sued for mal practice, what would the Illinois Medical Society do for me?

SECRETARY:—The Illinois plan is to assess one dollar a year from each member. In 4 years they have accumulated a fund of $1,800. They propose to defend a man, and pay the entire expenses of defense to the Court of Last Resort. They have not had in the last 4 years a single successful case against any member.

DR. ARMSTRONG:—Is it their own medical society that is incorporated into a medical defense league?

SECRETARY:—Yes. They have a medical defense committee. Dr. W. J. Evans is the chairman. The committee consists of 5 or 6 members. Any complaint is made to the committee, they take up the facts in regard to the case, and they have some option in regard to the character of the suit. They would not defend criminal cases. They take it out of the hands of the individual entirely. They say,

if we regard this as a case to fight, it shall be left with us, and we will fight it. If we think it is a bad case to defend we may compromise, but we defend you. You have nothing to do. They retain a lawyer, and when the facts, the names of the witnesses, etc., are obtained from the defendant, they are handed over to the lawyer, and he takes charge of the case and goes ahead; and if they are beaten he appeals it to the next court. They do not propose to pay the damages for one dollar a year—that is, not at present—not until a sufficient sum is collected to warrant such a promise; and I do not suppose that we would be justified in paying the expenses—at least the damages that might be assessed. That is what you wanted to know, is it?

DR. ARMSTRONG:—Yes, just what it amounted to, so that we can tell the county society what we are voting for.

SECRETARY:—But what we propose to do is this, to send to every county secretary a statement, as briefly as possible, of a plan which we propose, or which may be adopted by the committee, and that a referendum be taken in every county society, and particularly on this point, whether the members of the county societies are willing to stand the assessment of one dollar additional for this purpose, and we want an answer from every county society, if possible; that is, an expression of opinion.

DR. SARLES:—I move that it be the sense of this society that the minimum fee for the examination of assessment societies should be $2.

Motion seconded and unanimously carried.

Adjourned.

SECRETARY'S CORRESPONDENCE.

THE ANNUAL MEETING OF THE COUNTY SOCIETIES.

In accordance with the By-laws for County Societies the Annual Meeting for election of officers and reorganization comes in December. It should come early in the month in order to afford time enough for the Program Committee to arrange the program for the coming year before Jan. 1st. Our By-laws provide that "the Committee on Program and Scientific work shall consist of the President, Vice-President and Secretary of the Society, and that it shall have neatly printed and mailed to every member of the Society on or before Jan. 1st. the complete program for the ensuing year."

The advantages of such a plan are obvious. Those engaging to furnish papers have ample notice and time for their preparation. The members of the Society can likewise prepare themselves for their careful and serious discussion. Moreover, it affords a definite plan of work, laid out for the whole year when, otherwise, there may be no program at all, or perhaps one hastily prepared and half heartedly entered into for each separate meeting. If, in the past, we have not lived up to our privileges in this regard, let us turn over a new leaf and plan for 1908 like intelligent men, who are willing to spend and be spent in building up the medical profession of the State. The post graduate course of the American Medical Association, modified to suit the case, is available for societies finding it difficult to arrange a program.

Another important matter is the proper organization of the new alignment of County Societies arranged by the House of Delegates at the Superior Meeting. The various Councilors should aid actively in accomplishing this work and should be present at the Annual Meetings if possible. Councilor Dodd of the 11th District has three such reorganizations: the Ashland-Bayfield-Iron, the Price-Taylor-Rusk, and the Oneida-Forest-Vilas County Societies. Councilor Boothby of the 10th District has two: The Barron-Polk-Washburn-Sawyer-Burnett and the Dunn-Pepin Societies. Councilor Evans of the 7th, the Trempealeau-Jackson-Buffalo Society. Councilor Combs of the 6th, the Kewaunee-Door Society. Councilor Sauerhering of the 9th, the Waushara-Green Lake-Adams Society. Councilor Redelings of the 8th, the Marinette-Florence Society, while to Milwaukee is assigned the task of assimilating her neighbors of Ozaukee. At this December meeting new officers are to be elected for each Society, a new County Society card-index prepared, and a complete and thorough reorganization effected. As suggested by chairman Boothby, the old charters

should be sent to the State Society Secretary when new charters will be sent to all the new organizations. Every County in the State is now, theoretically, under the care of a combination of Counties sufficiently strong in numbers to look after it. Let us see to it that these plans are made a practical success. As has been frequently emphasized the most important figure in these plans is the County Secretary. See to it that he is the *right man in the right place.* In each case confer with your Councilor and make it a matter of careful and discriminating selection. It is an office of far greater importance that the President of the State Society and should be so regarded. Chap. 5, Sec. 2 of By-laws provides that the dues shall be payable Jan. 1st, of each year. Make these collections, as far as possible, at the December meeting, and then continue to prosecute the work with vigor till every straggler is brought in. The dues are payable but once a year, and can be paid early just as well as late.

MEDICAL DEFENSE.

Elsewhere in this issue (page 373) can be found the report of the Committee appointed at the Superior Meeting to draw up a plan of Medical Defense to be submitted to the County Societies. Upon their decision will rest its adoption or rejection. For this reason it is necessary that each County Society shall carefully canvass the matter with the whole membership and discuss the matter thoroughly before taking action. When reporting to the State Secretary, give the exact vote on the proposition, pro and con, so that the true expression of the whole profession of the State can be obtained. Probably the only serious objection will be concerning the additional assessment of $1.00. This will provide a fund of over $1,500 and it may not be necessary to make another assessment for two or three years, as the experience of other States is, that, under this plan, few or no suits ever go to trial.

For the benefit of the Societies which are to take action, it may be well to state the experience of other State Societies:

1. Pennsylvania has had a defense fund for several years (10 cents yearly per member) and believes in the plan, but has had no suits to defend. "One suit was threatened and probably the fact that the member would be defended by the Society had something to do with the dropping of the case." The Council acts as the Defense Committee and selects the attorney.

2. Philadelphia County Medical Society has a Defense fund of $2,000 and several threatened suits have been dropped as soon as it was learned that the County Society employed one of the leading lawyers of Philadelphia.

3. Wayne County (Mich.) Medical Society has $1,200 in the Defense fund. A few of the members object to paying the extra dollar, but Dr. Tibbits, the Secretary, writes that the defense plan has become a fixture and that it will be continued.

4. Maryland has had Medical Defense for two years. Dr. Ruhräh writes: "So far it has worked well. We retain an attorney at a fee of $100.00 per year—to look after any suits which may occur and should expect to pay extra if the case were far removed from Baltimore or involved an unusual amount of work. So far we have had no cases to defend, although one case has been taken up which would not come strictly within the agreement. The Council acts as the defense Committee. The advantages of such defense is in inhibiting lawyers and others from bringing suits."

5. In the Illinois State Medical Society, Medical Defense was adopted one year ago. The Chicago Medical Society had defended its members for a number of years and the results were so satisfactory that the plan was adopted by the State Society. The entire question was referred to the County Societies which reported in favor of the plan. The House of Delegates raised the annual dues $1.00, the money so raised to be set apart for a defense fund. Dr. Weis, the Secretary writes: "I think you would be interested in knowing how this question has worked: first, on membership, and second, its practical utility. As to membership—our Society has lost altogether about 25 members and has gained fully 300. This I believe to be due specifically to this feature. Those who dropped out and did not wish to pay the extra $1.00, were mostly very old men, practically retired from practice.

On the second question, I can say that I do not believe that during the last year there has been a single case of malpractice successfully prosecuted against any of our members, but on the contrary, a great number have been successfully defended. One, I believe, was compromised and a great many more were not allowed to get into court at all. It is the cheapest kind of insurance that can be had and I believe that its chief merit lies in the fact of its prophylaxis. The Illinois Counsel receives $1,000.00 per year and all the costs of defense are now paid by the Society, but a judgment would not be paid. Suits will not be brought when lawyers understand that a hard fight awaits them; physicians who will testify against a fellow member can not be found, and all are willing and anxious to assist the State Soicety in the defense." Dr. Weis reports that the defense fund contained $4.00 on July 1, 1906 and $2,060.50 on May 1, 1907. He

estimates the actual cost of protection per member to be 47 cents per year.

Dr. H. N. Moyer, a member of the Illinois Defense Committee, writes: "We retained attorneys, and at first, having no accumulated fund, we undertook to meet what is known as a retainer fee. Later, as our funds accumulated, we paid court costs and then attorney fees, and we now think that we are in a position, or soon will be, to pay any judgment that may be rendered against our members.

6. New York State has had the largest and most successful experience in Medical Defense. It was adopted in 1902, and is now regarded as one of the strongest features of the State Medical Society. Dr. Townsend, the Secretary writes: "I am convinced from the results in New York State that one of the most beneficial things a County or State Society can do is to protect its members from unjust suits for alleged malpractice. In this state the men are enthusiastic about it, and a great many retain their membership on account of this provision, while others have told us that they joined only to get the protection. It is astonishing how much easier it is to successfully defend a suit when the State Society is defending it, because all the profession feel it is their duty to go to the aid of a fellow practitioner and take an active part in assisting the Society's Attorney in winning the suit."

7. Iowa, last May, adopted with enthusiasm a Medical Defense plan. Dr. Littig of the Committee writes me that they have had no experience as yet since the defense applies only to suits based on acts subsequent to July 1, 1907.

8. Nebraska adopted a plan last May, but it does not go into effect till a year.

In Kansas, Arkansas and New Jersey, Committees have been appointed to report at the next Annual Meeting.

From the experience of these States it is probable that the plan will be generally adopted. If the County Societies in Wisconsin to which it is submitted see fit to approve, I am confident we shall make no mistake in giving it a trial also.

The date of the next Annual Meeting will be announced as soon as the Local Committee of Arrangements has been appointed. The date of the meeting of the A. M. A. is June 2d-5th and the last Wednesday of June has been suggested as a suitable date for our meeting.

C. S. S.

REPORT OF COMMITTEE ON MEDICAL DEFENSE.

The committee appointed at the last meeting of the State Medical Society to draw up a plan of Medical Defense by the Society, which should be submitted to the County Societies for their consideration, begs leave to submit its report in the form of the following recommendations:

1. The Committee of Medical Defense shall consist of the President, Secretary, and Treasurer of the Society—with the twelve Councilors, who shall select from their number, or the Society at large, an Executive Committee of three—designating the chairman—and who shall also be members of the Committee of Medical Defense. The Executive Committee shall be perpetuated by the election of one member each year. The term of service of each member shall be three years, provided that, as first organized, the service shall be determined by lot, with terms expiring in one, two, or three years respectively from January 1, 1908.

2. On or after January 1, 1908, it shall be the duty of the Executive Committee to investigate all claims of malpractice against members, to adjust such claims in accordance with equity when possible, and if, in their judgment, an adjustment is impossible, to forthwith forward all papers connected with the case received from the applicant, to his attorney; but they shall not pay, nor obligate the Society to pay, a judgment, claim or settlement against any member. It should be provided that the Committee shall have discretionary power in the selection of cases for their action.

3. The Executive Committee shall adopt rules for their guidance and for the guidance of the members of the State Society to contract with such agents (attorney or other) as they may deem necessary.

4. They shall have charge of the Medical Defense Fund, which fund shall be secured as follows:

A. Each member of the Society shall be assessed $1.00 a year for this fund alone, to be paid with the regular State Dues, and this fund shall be subject to warrants signed by the Chairman and Secretary of the Executive Committee.

B. The Executive Committee shall at each Annual Meeting of the State Society make to the House of Delegates, a detailed report of

all expenses incurred, and work done during the year ending April 1, next preceding the meeting.

C. No action shall be taken by the State Medical Society of Wisconsin in reference to an act committed prior to January 1, 1908, or before the date of qualification of the accused as a member of the Society. Furthermore, no member shall be entitled to the privileges of defense by the Society whose dues to the Society are not paid in advance, as elsewhere provided in the Constitution and By-laws, and such defense shall be granted only to members residing in Wisconsin and not to non-resident or affiliated members.

L. H. PELTON,
JULIUS NOER,
EDWARD EVANS,
JOHN J. McGOVERN,
HENRY B. HITZ,
ARTHUR J. PATEK,
CHARLES S. SHELDON.

(N. B.—The above was formulated at a meeting held in Milwaukee, on November 20th. It is merely the preliminary outline of a plan the details of which will be worked out by the Executive Committee. Address the Secretary, Dr. Sheldon, if further information or explanation be desired.)

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ORIGINAL ARTICLES.

NERVE LESIONS COMPLICATING SIMPLE FRACTURES OF LONG BONES AND THEIR TREATMENT.*

BY KARL DOEGE, M. D.
MARSHFIELD, WIS.

It is only necessary to mention the above title in order to make it apparent to every physician's mind that such complications may readily occur. The violence that is sufficient to break and often splinter the osseous tubes of our extremities, certainly ought to be strong enough to injure the surrounding and more vulnerable soft tissues. Thus the skin, muscles, vessels, etc., may simultaneously be contused or torn. Such injuries to the soft parts are generally apparent at the time of the first dressing and call for prophylactic, antiseptic treatment of the skin overlying the fracture in order to prevent infection. Deep seated injuries to the tissues surrounding the bone are not so apparent, but are always present, and may be mild or of a very serious nature. If much dislocation of the fragments takes place, the sharp and ragged edges of the line of fracture tear and cut into the adjoining muscles and other tissues. Thus often blood vessels of considerable size are torn and occasionally, though perhaps rarely, nerves are injured or cut into. I say rarely. Just how frequently such accidents happen to nerve trunks or nerve fibres must for the present remain a matter of conjecture. Nerve fibres, like blood vessels, amastomose to a considerable extent, and unless a fair sized motor branch is affected this injury may escape detection. Even then recognition may be fraught with difficulties, as vicarious action of the adjoining muscles may almost completely hide the motor paresis. The literature on nerve lesions complicating simple fractures is decidedly meager, which is rather surprising, considering the voluminous medi-

Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, Aug. 22, 1907.

cal writings on other subjects. If this is a criterion, it must be that such accidents occur but rarely, or if not so, are frequently not recognized and readily overlooked. That they do occur even in simple fractures we all know, and that they are occasionally unrecognized, at least temporarily, I know from personal experience.

Traumatic nerve lesions we may classify into those that occur immediately upon receipt of injury and those that appear remotely. The immediate ones are either simple contusions or division of nerves, and the division may be complete or only partial.

Contusion of a nerve trunk may occur if the member is pressed violently between two firm objects, or what is more likely, between an object and the opposing bone. That nerve tissue is peculiarly sensitive to pressure of even a moderate degree, we know. It is only necessary to remind us of the disturbances produced in the ulnar nerve upon striking the "crazy bone"; of the "foot going to sleep" if the sciatic nerve has been pressed upon for a considerable time; of the paralysis of the forearm produced during sleep, when resting the head heavily on the upper arm, as occasionally occurs in intoxicated individuals; and lastly of the anesthesia paralysis of the forearm caused most likely by the pressure upon the nerve when the arm hangs over the edge of the operating table. Considering the comparatively slight amount of force that occasionally is necessary to produce a lesion in a peripheral nerve, it is certainly to be wondered at that nerve lesions complicating simple fractures are not more frequently observed.

Peripheral nerves have trophic, sensory and motor functions. If a nerve is contused any one or all of these functions may be interfered with. The degree of interference and the length of time it lasts depends upon the degree of contusion. Just what constitutes a contused nerve pathologically, I have not been able to find out. The usual text-books do not mention it. It is certain, however, that in a contused nerve, whose function is inhibited for weeks and months, serious changes must have taken place. Proper functioning of a nerve implies intact axis-cylinders, and in a divided but sutured nerve, nerve impulses cannot be carried properly unless regeneration of axis cyclinders has occurred. It is therefore not unlikely that in a contused nerve axis cylinders are interrupted, leaving the sheath of Schwan and the neurilemma intact, and allowing of more certain and earlier regeneration of the axis cylinder and of more accurate contact than if the nerve with its membranes had been divided.

As to the symptomatology of contusions, I will quote De Forest Willard of Philadelphia, who in his article on "Surgical Diseases and Wounds of Nerves", in Bryant and Buck's Surgery says: "Slight con-

tusions are frequently followed by numbness or tingling at the peripheral ends, while more severe blows will result in partial or total loss of power, with atrophy". Slight loss of function in a contused nerve complicating a fracture, is of course not easily detected, as we naturally expect a loss of motor function in a limb whose bone has been fractured. This loss of function in fractures is caused by the pain that motion would produce and is really a voluntary one—that is, the patient could move his extremity if he could eliminate the pain. The laity has recognized this fact and occassionally argues that if the affected part can still be moved, it is not broken. They say: "Doctor, my leg is not broken because I can move the toes". The same line of reasoning they apply to the arm and hand. While physicians know the fallacies of such logic, we often have failed to grasp the truth of what is partly the reverse of the above reasoning, that is when the fingers of a broken arm cannot be moved voluntarily in spite of the pain, some complicating factor besides a fracture is active. Paralysis of the muscles has occurred, which in every instance can only be due to a traumatism of the nerve, a contusion or division. I would urge, therefore, a careful discrimination between inability to move a limb on account of the pain it produces and an inability due to paralysis. This naturally can only be done by requesting the patient to move the parts. If, for example, the humerous is broken, the patient will carefully support his forearm and hand and more or less avoid all muscular effort to prevent pain. In dressing such an arm, the humane surgeon will respect the patient's sensitiveness, and will while manipulating the member, exercise care and precaution. He will avoid all unnecessary handling and confine his manipulations to those absolutely required in order to make the diagnosis, for reducing the fracture and for the application of the splints. This done, the patient is requested to be careful with his arm, to keep it as quiet as possible in order not to disturb the fragments. It will be readily seen that this line of action, which is the common and approved one, is not especially conducive to the detection of possible nerve injuries. Nor is it likely that the after-treatment during the next one, two or three weeks will afford especial opportunities to detect paralysis of motion or sensation. During this period, again, all motion of the arm is carefully avoided. The occurrence of subsequent edema within the splints produces a tightness of the dressing that in itself may produce sensations of numbness and stiffness of the fingers. Thus it is apparent that contusions of nerves are exceedingly prone to pass unobserved unless especially looked for. The time to look for them is of course all the time as long as we treat the case, as we shall see later. But the

first and most auspicious opportunity, and one that should be taken advantage of as a routine in every case of fracture—simple, comminuted or compound—is immediately after the reduction of the fragments, and if narcosis is necessary, before the anesthesia and as soon as practicable thereafter. We must then request the patient to move his fingers to test flexion and extension. This can always be done and is absolutely painless, provided the arm is properly supported. For this a moment is sufficient and settles the question sufficiently to avoid gross oversight.

It is more than probable that a systematic examination of all fracture cases, with a view of determining a possible loss of motion or sensation in the affected limb, would result in findings much more numerous than we suppose at present. Loss of sensation over a large area is often recognized by the patient himself and its only possible explanation is nerve injury.

Thus far the direct causes of nerve trauma complicating fractures and their symptomatology have been considered. The remote causes constitute such agencies as arise later. This would invade the chapter on nerve compression. The scar tissue that forms in extensively torn soft parts may occasionally grip a nerve so tightly as to gradually inhibit its function. Especially is this the case where the nerve passes through the substance of a muscle. An extensive callus has often been found to press upon or even completely surround a nerve, resulting in the interruption of nerve impulses. In these cases the symptoms of sensory and motor paralysis would develop gradually, several weeks after the occurrence of the fracture. It would be progressive, resulting in partial or complete paralysis of the parts supplied by the nerve. Thus the symptoms of contusion and severance of nerves are evident immediately after the trauma, those of compression appear later. This fact constitutes an important point in the differential diagnosis.

But how can we decide whether a nerve is contused or whether it is divided? The symptoms may be identical in both and in very many instances a differential diagnosis cannot be made at once. It has been observed, however, that a contused nerve, or a nerve that has been successfully sutured, will regain its sensory function weeks and months before its motor power is restored. This fact may be relied upon to form somewhat of a criterion in the differentiation between the two conditions. Thus, if after a few hours, days or weeks, sensation completely returns in the affected area, we may safely exclude nerve division. Sensation in a divided nerve can only return after successful suturing. Again, if motor paralysis exists but sen-

sory function is normal or only impaired over the corresponding area, contusion no doubt obtains, as division would imply complete absence of motion and sensation. Where only a few muscles are involved and there is a correspondingly small sensory area, we cannot be so certain, as sensory fibres of adjacent nerves often invade neighboring territories. In most instances, however, considerable time will have to elapse to see if sensation returns or not, the recovery of the sensory function pointing towards contusion and arguing against division of the nerves.

The question now arises, how long is it safe to wait for the return of sensation, and if sensation is present, how long can we hope for the return of motion before resorting to operative interference. This question has been decided by various operators in various ways. It is a fact that immediate or early suturing of a divided nerve offers the best chance of success, while delay forbodes disaster. For this reason some would not wait to differentiate between contusion and division, but would operate at once, if the nature of the trauma makes a division likely. In their judgment not much is lost, even if at the operation the nerve be found intact, and much time is gained if it be found divided and immediate suture done. Others, basing their opinion upon the fact that good results from secondary nerve suture have been obtained months, even as long as nine years after the primary injury, see no reason for hurry and propose to wait one, two and three months before advising an operation. To my mind, the reason for waiting three months or more in the hope of spontaneous recovery, is not very apparent. The observation that occasional recoveries without operation have taken place many months after the accident should not counterbalance the well established fact that early operations produce the best results and save time to the patient. In this connection, it may be well to quote from an article by R. H. Birge of Cleveland, Ohio, that appeared in *Surgery, Gynecology and Obstetrics*, July, 1906. "A very noticeable feature of all these cases is, that sensation always returns weeks before motor power, and I believe that the condition of the sensory recovery gives valuable assistance in making up our minds when to operate. If in these cases sensation begins to improve in two or three weeks, and goes on to practically complete recovery in one to two months, we should feel justified in waiting four months or more for begining return of motion, and a year or more for complete recovery. But if the sensory return is poor or is absent, it is evident that we cannot expect much, if any, motor recovery and in such cases a delay of six or eight weeks before urging operation should be sufficient."

Coming to the question of treatment it is evident that contusions are best treated by expectancy, the active measures consisting of massage of the muscles, passive motion and galvanism to prevent as much as possible an atrophy of the muscles. Divisions must be treated by suture and end-to-end approximation. In this respect J. B. Murphy states: "Functional regeneration is not accomplished until the distal end of a divided axone is brought in contact with a proximal axone, which extends uninterruptedly from a ganglion cell-body. Lateral apposition or end-to-side approximation of nerves gives only occasional axis-cylinder contact, and only a small per cent. of the axones regenerate. All nerve reunion should be made by end-to-end contact of fixation." Absolute asepsis is a necessity as suppuration not only prevents union, but favors the formation of connective tissue between the ends and hinders axis cylinder contact.

"In old divisions, resection of the end bulb must be made to expose the normal nerve fasciculi before union is attempted." It is of interest to note how late after the injury good results have been obtained. Jessop in 1871 reported a successful secondary suture nine years after the injury. This is exceptional. We may, however, confidently expect good results as long as one to two years after the trauma, provided the operation is aseptically carried out and end-to-end approximation skillfully made. Massage and galvanism should follow the operation and be persisted in for many months. I shall now report my case.

C. K., age 10. On November 18, 1906, the girl fell from a children's express wagon and injured her arm. The arm became edematous during the night and the father came to the office to inquire about the case. As no improvement took place I was called to see the patient on November 21st, three days after the accident. The patient wore the arm in a sling. The hand and forearm were greatly swollen. The hand hung loosely from the wrist. She could not move the hand or fingers because it seemed to cause her pain. Passive motion of the hand was resisted by the little girl for the same reason. On account of the severe swelling of the forearm no diagnosis of the injury was made and she was taken to the office where an x-ray picture could be procured. Before the plate could be developed, the child was anesthetized and the parts thoroughly palpated. The injury proved to be near the elbow. There was a suspicion of crepitation and the impression received from the examination led to the diagnosis of dislocation of the head of the radius with a possibility of fracture of the neck of the radius. The ulna appeared uninjured. While under the anesthetic, attempts at reduction of the dislocation were made by trac-

tion and pressure. These efforts seemed to be successful and free motion of the elbow joint resulted. The arm was dressed in an extended position with an anterior splint and a pad over the head of the radius, intended to keep the luxated part in place. The x-ray plate showed that the patient had moved her arm slightly and the plate was at first not considered perfectly clear. As the result of the reduction seemed to be perfectly satisfactory, no very close study of the plate was made. After one week the arm was dressed in a flexed position with two side spints. At the end of three weeks, the edema had nearly entirely disappeared and a thickening as of a callus became apparent near the upper end of the ulna and about one inch from its proximal end. This observation suggested a closer study of the x-ray plate and now a fracture of the ulna near the joint could be seen very plainly. During the three to four weeks following the date of the injury, the patient resisted all manipulations of her hand strenuously, apparently on account of pain or fright, and it was thought possible that the blood extravasation between the muscles of the forearm could be productive of sensitiveness and pain. After four weeks the splints were removed and the patient instructed to encourage motion of the arm and to apply massage. The patient thus far had no opportunity to move her hand on account of the splints. At the end of the fifth week the child was seen again and the position of the hand suggested a drop wrist. Examination then revealed the fact that we had a complete paralysis of the extensor of the fingers and a partial paralysis of the extensor of the hand. The flexors were not paralysed, but perceptibly weakened. Recalling to mind that from the very first the patient had not moved the hand or fingers, it was evident that at the time of the injury a nerve lesion had taken place. Since sensation had not been disturbed and the action of the extensor of the wrist had only been weakened, but not entirely abolished, it was not considered likely that the musculo-spiral nerve had been injured.

The interosseous branch of this nerve supplies the extensors of the fingers and contains no cutaneous sensory fibres. Its course after it leaves the musculo-spiral lies close to the upper end and outer surface of the ulna. In view of this, it was considered extremely probable that a lesion of the interosseous nerve had taken place. A very exact determination of just which muscles were paralysed could not be made on account of the low intelligence of the patient and her constant apprehensiveness.

No sensory fibres being involved, the presence of sensation could not be utilized as a diagnostic means in differentiating between contusion and division. Taking all things into consideration, it appeared

to my mind very probable that a laceration of the nerve had taken place and an operation was advised. This was performed on January 8, 1907. The muscle-spiral was exposed above the elbow and traced downwards to where the interosseous is given off and this branch was traced for a distance of two inches downwards. No break in the nerve could be seen. The nerve was found intact and as far as could be ascertained by sight and touch, no scar tissue or callus was pressing upon it. We evidently had to deal with a case of contusion of nerve and not with division. The wound healed primarily and on the tenth day following the operation, galvanism and massage were instituted. Four weeks later the first signs of improvement of motion were noticeable, which improvement progressed slowly but perceptibly. Four months later the patient's father pronounced the injured arm just as strong as the other one.

Discussion.

DR. HERMAN REINEKING of Milwaukee:—Mr. President, this paper touches upon a subject of surgery of the very greatest importance, and I am very glad the subject has been opened and the paper therefore should not go without discussion.

The doctor speaks of the danger of overlooking these cases, and the danger is certainly very great. It seems to me that from the very rarity of finding such injuries we become more or less oblivious to the possibility of their occurring; for these cases of nerve injury in simple fracture are certainly rare.

I recall only one case of this kind, and this being so very similar to the one which the doctor has related I will state it briefly.

This was a case of simple comminuted fracture of the humerus about the middle, where injury of the musculo-spiral nerve would naturally be looked for. When the patient came into my hands there was complete paralysis of the extensors of the hands as well as of the fingers—complete drop-wrist.

As it was impossible to hold the fragments in place with ordinary splints, and there was complete paralysis of both motion and sensation, I concluded not to wait at all, but to open up the fracture, see about the condition of the nerve and then wire the fragments.

This was done, and to my surprise when the nerve was exposed, there was no evidence of any gross lesion, nor any compression. However, in this case there had been severe injury to the skull, and the man was in a more or less irresponsible condition: and up to that time it was impossible to retain the fragments in place, so that there may have been compression before the operation was begun.

As I said, in this place there was no gross lesion of the nerves, and at the time of operation no evidence of compression, so that nothing was done to the nerve itself. The fragments were wired as well as could be done,

the arm placed in plaster of Paris and then suspended vertically. The man at that time was in a delirious condition, and this seemed the only possible way of holding it.

The fracture healed and good passive motion was obtained. He left the hospital and after a few weeks came back with evidence of considerable improvement.

The drop-wrist had then entirely disappeared, but there was still some paralysis of the extensors of the fingers. I relate this case because it corresponds so closely with the one that the doctor has related, showing that while there may be no evidence of division of the nerve, nor even evidence of compression at the time of the operation, yet we cannot say what the condition may have been at other times. A severe contusion may no doubt take place within the sheath, the sheath remaining intact but the neurons themselves being divided.

DR. E. S. HAYES of Eau Claire:—To show what slight injury will cause paralysis, let me state that I have had a patient, a young woman, who put her arm over the back of a chair having some ornaments, some sharp points running along on the back of the chair. She simply rested the ulnar nerve (that is where the point of pressure was) on the back of the chair, and there was enough pressure on the ulnar nerve to cause paralysis from which it took the patient quite a number of weeks to recover. It only shows how slight a pressure may do injury to the nerve.

DR. G. PERRY of Amery:—I remember seeing a case in my hospital practice which illustrates the result of nerve injury, and the apparently healthy appearance of the nerve and nerve sheath following: It was a case of very marked wrist-drop following a fracture of the fore-arm, in which a careful search was made for nerve lesions about five weeks after the fracture, but none could be found. The patient was apparently healthy otherwise and fully recovered. The conclusion was reached at that time that quite an extensive injury and resulting loss of nerve function might occur without showing any permanent results of injury to the nerve.

SIMPLE ULCER OF THE BLADDER IN THE FEMALE.*

BY M. W. DVORAK, M. D.

LA CROSSE, WIS.

Not infrequently patients come to us, complaining of 1. Frequent, and 2. Painful micturition.

Some of these cases, I believe, are passed over with a few remarks, the urethra is examined for caruncle, or at most the urine is examined, and if blood and pus are found the case is called cystitis and treated with internal medication alone or combined with irriga-

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tion. Often it happens that such cases go away only to go to the other man and receive similar treatment with the same results. The complaint continues. A number of such cases if properly examined, will be revealed as Ulcers of the Bladder.

If we peruse the literature we find that simple ulcers of the bladder are of infrequent occurrence, but I am certain this is not so because they are not often enough sought for, and that, if we accepted the examination of the bladder as a routine measure, more cases of ulcer would find their way into our reports.

Fenwick says in his Clinical Cystoscopy: "Our knowledge of the clinical history of simple ulcers of the bladder is inaccurate because the diagnosis and prognosis of such simple lesions of the mucus membrane in pre-cystoscopic days was impossible. It is only on post mortem subjects and rare suprapubic cases undertaken before 1887, that any definite ulcer could be diagnosed. Since that time it has been shown that a simple, non-tuberculous form of ulceration is met with, which is usually solitary and wrongly considered incurable." These are the words and opinion of a specialist. They are, unfortunately, true of many general practitioners to-day. It is true we have the cystoscope, but it is not often enough employed in this class of work. We have no excuse for not diagnosing and properly treating cases of this kind. No very great skill is necessary for its handling in the female; a little practice and one easily becomes sufficiently skillful in its use for practical purposes. In fact, it is as easy to examine the female bladder as it is to examine the drum membranes of the ear.

Fenwick divides ulcers of the bladder into a. *a.* Spontaneous, *b.* Consecutive; b. Tuberculous ulcers; c. Malignant.

Cases of the second and third variety are not so uncommon, but of the first variety are less frequent. It is of this variety of ulcers I wish to submit several cases which occurred in our practice.

The cases were observed by Dr. Evans and myself.

CASE I. Miss J. K., age 17, McGregor, Ia. Entered hospital July 19, 1904. Family and personal history are free from any suspicion of tuberculosis and malignancy. She states that her present illness commenced about two years ago with a slight burning pain during micturition; this would persist for some few minutes after act was completed. The pain has gradually increased in severity and now interferes with her duties. It is severe, lancinating in character and radiates downward along the inner surfaces of thighs, and is experienced only during act and for a few minutes following. At other times she feels well and is free from pain. She has for the last month or two had some frequent urination though not marked. Blood was never observed by her.

Examination: Physical, negative. Urinalysis: Microscopically a few blood and pus cells; repeated examination fails to show tuberculosis.

Cystoscopic: On trigone just adjoining the ureteral orifice is found a very superficial ulceration or erosion, regular in outline, covered with fibrin and exposing to view underneath a healthy looking granulation tissue.

Treatment: The ulcer was curetted at this time, cauterized with 40 per cent. silver nitrate solution; after which salt solution was introduced into bladder, and subsequently treated with irrigation of 1-10,000 sol. silver daily, followed by introduction of a small amount of iodoform emulsion (10 per cent.) which was allowed to remain.

July 30, 1904, examination shows ulcer still persisting; at this time again treated with 40 per cent. silver.

Aug. 5, 1904, reports herself very decidedly improved. Discharged.

Jan. 3, 1905, returns; has remained quite well, but occassionally experiences some pain and frequent micturition.

Examination: Shows a small ulceration still persisting in same location. Treated as before with 40 per cent. silver. Discharged.

Aug. 18, 1905. Examination shows bladder normal except for a tendency to bleed on slight rubbing about old ulcerated area. Touched with 5 per cent. silver sol.

Oct. 2. 1906. Reports herself well for the last year.

CASE II. Mrs. M., 44, Lansing, Ia. Entered hospital Apr. 18th, 1901. Family and personal history free from tuberculosis and malignancy. Comes to us complaining for a little over a year of frequent and painful micturition with very occasionally a little blood. Pain is severe and located in "neck of bladder," and persists for several minutes following act.

She had been treated with irrigations and internal medication since onset of above symptoms, without the slightest relief.

Examination: Negative. Urinalysis: Some blood and pus shown by microscope, no tuberculosis on repeated examination.

Cystoscopic: On trigone to left of right ureter and on level with it is an ulcer the size of a dime, with ragged edges, not undermined, showing a sloughing base, which bleeds easily. The remainder of the bladder is normal.

Treatment: Rest. Curettage of ulcer, with cauterization with 40 per cent. silver. Silver sol., 1-10000, irrigations followed by iodoform emulsions.

Apr. 23, 1901. Discharged. Very decided improvement.

Jan. 21, 1902. Reports that soon after leaving hospital *all* symptoms were relieved and she has since remained perfectly well. No examination made.

CASE III. A few months after this case a young lady from Cashton, Wis., reported with practically identical symptoms, for which she had never received treatment. Two treatments with 40 per cent. silver and rest in bed for ten days to two weeks effected a cure. The records of this case were mislaid.

CASE IV. Examination of this case allowed by courtesy of Dr. Marquardt. Patient complains of frequent micturition and a smarting pain on voiding urine which persists for a few minutes after the act. About Christmas of last year, frequency became more marked, necessitating passing urine every two hours; occasionally would notice blood. She had been treated medicinally and with irrigations, but found no relief.

April 20, 1907. Cystoscope reveals a small ulcer, size of a half dime, located centrally from and behind left ureter. It extends only to submucosa, the edges are clean cut and regular except on one side (lower) where it shades off almost imperceptibly into normal mucosa. Base is red and bleeds easily. Ulcer was curetted and treated topically with 40 per cent. silver, and subsequently with irrigations and iodoform emulsions, twice daily, for a few days (April 11), then every three or four days.

April 13. Frequency less, passed urine but once at night and two or three times during day; same burning pain persists.

April 15: Examination shows ulcer, but this has a less angry appearance.

April 26: very decidedly improved, same burning pain persists.

July. Pain has gradually lessened and patient reports herself as well.

CASE V. MRS. D. C. P., age 26. Seattle. Entered hospital Feb. 20, 1907. Family and personal history free from tuberculosis and malignancy. Gave birth to a child ten months ago, very difficult labor, forceps delivery, laceration of perineum, repair.

Previous to labor had been in excellent health. First day after delivery complained of very painful micturition; the pain was located "in neck of bladder" and was spasmodic and lancinating in character. Frequency not marked. This condition persisted about ten weeks, gradually becoming less severe. Pain would persist for a few minutes following act. Blood was never observed. After this she remained fairly well for three months with only occasional attacks of pain and slight frequency of micturition persisting for several days at a time. At the end of the three months, attacks again came on, pain now becoming very severe and frequency marked. She would also experience a constant pain (in bladder) if on her feet for any length of time (lying down would relieve her). Riding in car as

well as any jarring would produce excruciating pain, as she states almost intolerable, this gradually increasing for three months. Pain cutting in character and persisting for five minutes after completion of act. Frequency: must pass urine five or six times each night. Urine cloudy and thick.

Feb. 28, 1907. Examination: physical, negative. Urine: acid, much blood and pus, no tuberculosis after repeated examinations.

Cystoscopic: Posterior wall normal. Trigone is slightly reddened. Centrally located and on level with left ureteral orifice we find an ulcer about the size of a dime, its edges somewhat irregular, not punched out, only mucosa deep, base red and bleeding very easily and freely. Ureteral orifice normal. Remainder of bladder normal. Capacity of bladder 180 c.c.

Treatment: 40 per cent. silver topically, boric acid sol. irrigations followed by iodoform emulsion twice daily.

March 2, 1907. Passed urine only three times in an afternoon, twice last night and *without pain.* Capacity 200 c.c.

March 4, 1907. Very bad day. Painful and frequent micturition. Treated again with 40 per cent. sol. silver.

March 8, 1907. Very easy. Holds urine four hours. No pain. Capacity 260 c.c.

March 14, 1907. Capacity 350 c.c. Has had no pain until to-day. Examination: Ulcer somewhat smaller (?), less angry in appearance, bleeds easily. Treated as before.

March 17, 1907. Has had considerable pain after last examination. To-day is fine.

March 21, 1907. Remains very well.

March 27, 1907. Very well. Irrigations 1-10000 silver. Passed urine only three times in 24 hours. Capacity 400 c.c.

Since then patient has been well, but at times would experience pain during act, not at all severe, and *no frequency.*

April 26, 1907. Cystoscope shows ulcer, still about size of dime, but base is composed of healthy looking tissue, which *does not* bleed so easily, edges have a bluish pearly tint as though covering with epithelium, and regular. Ulcer is not so painful as previously. Injection of trigone is subsiding.

The urine has been examined every second day and has at present practically cleared up—very little blood and pus still present.

Treatment: Rest in bed—absolute. Plenty of water: Vichy-Lithia. Daily irrigations with boracic acid, of 1-10000 silver, iodoform emulsion (10 per cent.) instillations. Since this time has been quite well with only rarely some frequency.

On July 6, 1907, examination shows ulcer practically healed, only red and persisting. Topically 10 per cent silver, boracic acid irrigation.

CASE I of this series is open to the question whether or not it may have been a solitary tuberculous ulcer; yet, after a careful examination I think we are justified in describing it as belonging to the simple variety. CASES II and III also belong to this group. CASE V is one following injury to bladder during labor. The possibility of this is mentioned by Edgar in his Practice of Obstetrics.

The technique we pursue is essentially that as outlined by Kelly in his Practice of Gynecology: The patient is as carefully prepared as for an operation, the examiner's hands must also be prepared with care, asepsis must be maintained throughout every examination by handling only aseptic instruments and with clean hands.

Patient must come to table with lower bowel emptied, and immediately before she should empty the bladder in a sitting posture.

A 10 per cent. solution of cocaine may be applied by a pledget of cotton wound around a metal rod, and introduced just within the external urethral orifice and allowed to remain for five minutes. This is sufficient for all purposes. If she be a virgin, or very nervous, a general anesthetic may be used.

Posture may be either (1) Lateral, as described by Sampson (*Johns Hopkins' Hospital Bulletin*), or (2) Elevated dorsal, or (3) Knee breast. The last we find the most satisfactory. The knees should be placed near the edge of the table and separated for ten or twelve inches. The patient should keep the buttocks as high as possible and let the back "curve" in and bring the side of the face down on the table. The urethra may now first be dilated or the speculum introduced at once. The sizes we use are 10, 11, and 12. The smaller sizes are better adapted to use in the case of young women. In introducing the speculum an oil lubricant should be used and care should be taken that it does not touch the labia. The moment the obturator of the instrument is introduced the air rushes into the bladder and distends it. A point of importance is that air should *always* be first allowed to enter vagina, because otherwise the bladder balloons out into the vagina and obscures the view, making examination very difficult.

If when we first introduce the speculum we turn it to the left or right from 15 to 20 degrees, we will find the mons ureter and the orifice which looks like a transverse line or slit 2 m. m. long. If it is watched for half a minute or so, urine will be seen spurting from it.

If any ulcers are found they are treated either with curettage or cauterization or both (with 40 per cent. silver followed by salt solution), then a small amount of salt solution is introduced into the bladder and allowed to remain. The patient is then placed in bed. If no general anesthetic is employed and pain is severe, a suppository of opium may be given. Following this the bladder is irrigated daily or twice daily with boracic acid (sat. sol.); very mild bichloride or 1-10000 silver, or weak acids, as hydrochloric acid, followed by iodoform emulsion 10 per cent. (this should not be a glycerine emulsion). The patient is given salol gr. 5 or urotropin 7, plenty of water, lithia, the bowels ordered loose. Hot vaginal douches sometimes help to relieve the pain. A bland but nutritious diet is allowed. Usually for one or several days the patient complains of considerable pain on voiding urine, but after this she is comfortable for a variable length of time—is indeed permanently relieved by the one treatment.

The etiology of these cases is obscure. Walker of Baltimore thinks they may depend on some local disturbance of blood vessels and trophic nerves. He cites LeFur who speaks of vascular, trophic and infectious ulcers. In his opinion "they are produced by a local thrombosis of the vessels of the bladder which is induced by some general systemic infection, such as scarlet fever, diphtheria, typhoid. The trophic ulcers are found occasionally in some form of tabes or paralysis."

The diagnosis of ulcer is not difficult but the differentiation from the tuberculous form is not always an easy matter. But if

1) the ulcer is situated in other portions of the bladder than about the ureteral orifices,

2) if the ulcer is solitary,

3) if no history of tuberculosis is obtained, and if

4) no tuberculous tendency is apparent, and if

5) no tubercle bacilli are found in the urine, these cases can safely be termed simple.

After all, however, the therapeutic test is perhaps the best, tuberculous ulcers healing more slowly or not at all because of a continous descending infection.

Prognosis: good, but should be guarded; the cases usually heal slowly and the healing is a question of months, not weeks.

The symptoms of importance are:

1) Frequency of micturition, slight at first and gradually increasing.

2) Painful micturition during and immediately following act.

3) Blood in urine.

Diagnosis is made only by means of the cystoscope.

Dudley says: The field of usefulness of the cystoscope is the entire field of vesical diseases, and the one who uses it is constantly discovering that affections hitherto described as functional have definite local lesions as their basis and are often speedily amenable to simple methods of treatment.

The cystoscopic examination is necessary in all cases where a vesical affection is more than transient and the diagnosis is not absolute without its use.

Discussion.

DR. W. T. SARLES of Sparta:—The excellent paper of Dr. Dvorak has covered the subject thoroughly, and the method of treatment, by touching the ulcer directly through the cystoscope, with nitrate of silver, is proper treatment. But not every country doctor has a cystoscope, or, if he has, can use it successfully. I think that where the ulceration is due to a tuberculous process, the injection of iodoform emulsion is good therapy. I have used it in both the male and female bladder. Further than this I have nothing to add, and I most heartily endorse the paper.

DR. J. R. BARNETT of Neenah:—I got the idea from the paper that where a single ulcer occurs in the bladder, the affection is distinct from an ordinary cystitis; but a more or less general cystitis seems to be the more common experience in general practice. It is a little singular that writers on the subject will sometimes omit the subject of cystic ulcer as being a distinct disease and mention it only in connection with the general subject of cystitis, or omit it altogether.

My own experience has been that the large majority of cases of bladder trouble are of a more general character, a more generalized cystitis; that is, that would be inferred from the amount of the mucous or mucopurulent discharge, for one thing.

There was one point brought out in the paper to which I paid particular attention, because it referred to that single local condition as being a cause for the symptom which I think physicians generally have been inclined to attribute to a different cause. Now, respecting the radiating pain down the thigh, often associated with pain in the case of the female in the region of the clitoris, the general opinion is, I think, that where those symptoms are present there is ureteral and probably renal trouble associated with the bladder disease. They have usually been considered, I think, as being almost symptomatic of ureteral and kidney trouble; and so it was of great interest to me to find that that radiating pain might exist without any suspicion of ureteral or renal infection.

THE EARLY DIAGNOSIS OF GASTRIC CARCINOMA.*

BY WM. ACKERMANN, M. D.,

MILWAUKEE.

The comparatively recent advance of abdominal surgery has not only acted as a stimulus towards perfecting our diagnostic methods, but has thrust greater demands and responsibilities upon the internist. To-day an early diagnosis of gastric carcinoma is not only of interest from a scientific point of view, but is of the utmost importance from the practical standpoint. It therefore becomes evident that every gastro-intestinal case should, at the very beginning, receive the closest attention.

The first symptoms of a gastric carcinoma are very similar to those of a chronic gastritis, especially of the atrophic type, and are in all probability due more to the secondary gastric catarrh than to the primary neoplasm. They consist chiefly of anorexia, nausea, eructation, vomiting, constipation, coated tongue and epigastric distress.

The onset is of importance. Suspicion should be aroused whenever a patient, fairly well advanced in years, tells us that formerly he enjoyed the best of health as far as his digestive organs were concerned, but that, in the midst of this good health, he was, without any apparent cause, suddenly attacked with mild or possibly more severe gastric symptoms which persisted in spite of the most careful dieting and even resisted all manner of treatment.

Loss of appetite is one of the earliest and most important symptoms. Though the appetite is frequently diminished in gastritis anacida it never, in the latter disease, is lost to such an extent, nor does it ever prove so obstinate as in carcinoma. Associated with the increasing loss of appetite, there may, from the very beginning, exist a peculiar aversion to meat.

Nausea and more particularly vomiting, though important symptoms, are frequently absent. The vomiting depends largely upon the location of the tumor, being seldom present in the interosteal cancer and never absent in the cardiac or pyloric carcinomata. The vomitus is frequently of dark color due to the admixture of small quantities of blood.

Eructation of gas may appear early in this as well as in any other gastric disturbance and is of diagnostic importance only when the

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eructed gas assumes a foul, decomposed odor and taste, as this indicates either a decomposition of stagnating gastric contents or a breaking down of albuminous tissue.

The epigastric distress manifests itself chiefly in a feeling of fullness, pressure, or slight pain in the region of the stomach, which comes on or at least is intensified from one-half to two hours after meals. The patient may, at first, have a sensation of heaviness as though a weight were lying on the stomach, which, gradually increasing, later assumes more the character of a pain. The pain in this disease, however, very seldom assumes the character of gastralgia which is so frequently observed in the gastric ulcer. Nor does it come on with such regularity at a definite time after eating, or seems so entirely dependent upon the quality of food taken. Consequently the pain does not play as important a role in carcinoma as it does in the ulcer.

The tongue, though usually coated, offers us no aid in the diagnosis, as this is invariably found in cases of diminished hydrochloric acid secretion, especially when the appetite is poor. Neither can the enlargement of the infra or supra-clavicular glands be considered anything more than suggestive, as besides being late signs, there are other diseases which are more likely to bring about the enlargement of these glands than the gastric carcinoma.

Although anemia, cachexia, and emaciation cannot be considered early symptoms, the patients, at the time that the physician is first consulted, usually have lost several pounds in weight and their general appearance is such as would indicate the existence of a serious malady.

Much was at one time expected from the examination of the blood but this proved to be erroneous as recent investigations have shown that no reliance can be placed upon either the disproportionately low percentage of hemoglobin nor upon the absence of digestive leucocytosis.

Regarding the history of the patient, three factors are of special importance, viz., the age, family history, and previously existing ulcer.

Though, according to various statistics, seventy-five per cent. of the gastric carcinomata occur after the fortieth year of life, the age should be used only with the greatest caution as a diagnostic factor. According to Schaffer and Reichert from two or three per cent. occur before the thirtieth year, and I believe that Hemmeter is right in claiming that the limit of age for gastric carcinoma is gradually receding.

That heredity does play a role can hardly be doubted, and very frequently can the past history of a gastric ulcer be elicited in carci-

nomatous patients, but the collection of statistics to substantiate this is extremely difficult. Ewald in one hundred and seventy-eight cases found a family history of carcinoma in 6.7 per cent.

Neither can we question the previously existing gastric ulcer as an important etiological factor. Not only can we frequently elicit the past history of an ulcer in carcinomatous patients, but both by operation and autopsy the carcinomata have very frequently been found implanted upon the base of a previously existing ulcer.

The great variation of the symptomatology is readily comprehensible when we consider the peculiar anatomical construction and physiological function of this organ. While more uniform in the beginning, the symptoms naturally must vary in the later stages according to the location of the neoplasm. The experience of most authorities seems to indicate that a large majority of the carcinomata do not start, as was formerly believed at one of the orifices but have their origin along the course of the lesser curvature and then extend in one of three directions. It can extend, firstly, as is most frequently the case, towards the right or pyloric end; secondly, towards the left or cardiac orifice; or, lastly, it may spread downwards along the anterior or posterior wall.

If the tumor has taken the first course outlined, namely that of approaching the pylorus, we get the typical clinical picture of a pyloric obstruction which invariably gives rise to both local and general symptoms. The local symptoms usually resemble those of a gastritis. The patient experiences epigastric distress, a sense of weight, and often pain which come on or at least are aggravated from one half to two hours after meals and are dependent upon the quality and quantity of food taken. The pain is often relieved by vomiting, the latter increasing proportionately to the length of time the patient has suffered.

Constitutionally, we find evidences of intoxication as well as starvation. The patient rapidly loses in weight and strength, the muscles become flabby, the subcutaneous fat disappears, and the skin, besides its peculiar hue, becomes harsh and dry.

As these are the cases in which marked gastric changes are often evident, a physical examination of the abdomen should always be made. If the case is of long standing, we may find a dilated stomach behaving in a lifeless sluggish manner or it may assume great activity so that its delineations can not only be followed with the eye, but through the abdominal parieties we can perceive its slow and sometimes even violent waves passing across the upper part of the abdomen

from left to right. These waves, known by the Germans as Magensteifungen, are in themselves characteristic of a pyloric obstruction.

The finding of the lower curvature of the stomach below the umbilicus does not necessarily indicate a dilatation as this is frequently observed in cases of gastroptosis. Only after we have established the fact that the upper border is in its normal position while the lower is displaced downward are we justified in pronouncing the case as one of dilatation. It should also be remembered that, though food stagnation is often associated with dilatation, we may have an extensive stagnation without the slightest sign of dilatation.

The finding of a tumor is of course the most important diagnostic sign, but, unfortunately, the stomach is so situated that unless the tumor occupies a favorable location, it can not be palpated until it has obtained considerable size. This is especially true of the tumors of the lesser curvature while those of the pylorus are more easily accessible as they invariably displace the pylorus downward especially when the stomach is filled with stagnating contents or is inflated with gas.

As a pyloric tumor will, as a rule, cause quite a stagnation long before it becomes palpable, the stomach-tube should be resorted to at the first examination. If food remnants are found to be present in the fasting stomach, a pyloric stenosis is assured, and a further examination of the contents will usually differentiate the benign from the malignant obstruction. The stagnation of a benign obstruction is generally characterised by a normal or hyperacidity which is associated with the presence of sarcinae. The sarcinae are only found in stagnating stomach contents containing free HCl and consequently indicate a benign obstruction with two exceptions, namely, in the very beginning of most carcinomata and in such cases where the carcinoma has developed upon the base of a previously existing ulcer, commonly known as the ulcus carcinomatosum in which condition the HCl is maintained for a long time. Though we may surmise the presence of an ulcus carcinomatosum from the findings of the stomach contents at the first examination, in order to make a positive diagnosis the history of an ulcer and the repeated examinations of the stomach contents, together with a close observation of the patient, is absolutely necessary. In the obstruction caused by the cicatrix of an old ulcer we first have the hyperchlorhydria. If the base of the ulcer undergoes carcinomatous transformation, we find a gradual diminution of the HCl and sarcinae until, finally, there may be a total absence of both. Instead of the HCl we will then find the lactic acid and the sarcinae are supplanted by the Oppler-Boas bacilli.

The lactic acid is so often demonstrated chemically and the Oppler-Boas bacilli are so constantly found in pyloric carcinomata that they may well be regarded as characteristic of malignant obstruction. Simply because lactic acid is not found in all cases of carcinomata or because we do occasionally observe it in cases which are not carcinomatous, does not justify the casting aside of this important diagnostic sign as one of insignificance. To-day we know that the Oppler-Boas bacilli cannot be considered as specific of carcinoma and that their presence, instead of depending upon the carcinomatous growth itself, depends upon the occurrence of two concomitant factors which invariably exist in the pyloric carcinomata, viz., the presence of stagnation and the absence of HCl. Naturally these two factors may and do occur in other diseases besides the cancer of the pylorus. If, in a patient suffering with a gastritis atrophica, a pyloric obstruction occurs such as may be caused by a hypertrophy of the pars pylorica or, possibly, by a tumor pressing from without upon the pylorus or duodenum, a stagnation with lactic acid fermentation will be found. Such cases must be considered as exceptions and according to various authorities from 84 to 98 per cent. of the cases of stagnation with lactic acid fermentation were found to be of carcinomatous nature; showing that, in spite of everything that has been written to the contrary, the finding of the Oppler-Boas bacilli must be considered as one of the earlist and most important diagnostic signs of a pyloric carcinoma.

If the neoplasm encroaches upon the cardia the patient usually complains of a feeling of pressure or pain in the lower end of the sternum which may be present constantly and becomes more excrutiating during deglutition. The patient is usually able to locate the stenosis and finds that he is gradually obliged to resort to a more fluid diet as at first only the solid but later even the semi-solid foods pass with difficulty. Vomiting appears early and increases when a dilatation of the esophagus has taken place.

The painful and increasing difficulty of deglutition associated with rapid emaciation and cachexia will readily lead to a correct diagnosis which can be further substantiated by the finding of an obstruction while sounding which is, after all, the most important sign.

Thus we see that the diagnosis of a carcinoma situated at either orifice can, on account of the resulting obstruction, be detected relatively early. If, however, the growth is situated on the lesser curvature and, instead of extending to either the cardia or pylorus, it radiates downwards towards the greater curvature, we have a condition

sometimes known as an interosteal carcinoma which presents the greatest difficulty to an early recognition. These are the cases in which the subjective symptoms, as well as the physical and chemical examinations, indicate a gastritis atrophica as in both diseases stagnation does not occur and the test-breakfast shows an absence or at least a diminution of the HCl, pepsin and rennet. Consequently there are no characteristic symptoms upon which to base an early diagnosis and it is here that, after all other methods have failed, the microscopical examination of the fasting stomach contents frequently will impart to us the true nature of the disease.

If, in such cases, we can detect, microscopically, the constant presence of pus, blood, and, possibly, infusoriae in the fasting stomach contents, an early diagnosis of gastric carcinoma is possible long before a tumor is palpable.

I furthermore wish to make mention of three tests which have of late received considerable attention, viz., the Salomon albumen test, Gluzinskie's test, and the occult blood tests. The first two, though highly lauded by many, have thus far not met with general approval, while greater stress is laid on the repeated finding of gastric hemorrhages by the chemical examination of the feces. As these occult hemorrhages are almost continually present in carcinoma, intermittently in ulcer, and only very rarely found in gastritis, repeated examinations should be made and only the constant finding of occult blood should be considered characteristic of carcinoma.

Thus we see that we have no one symptom or test upon which we can base an early diagnosis and that it is the symptom-complex upon which we must rely. Although we cannot expect to make our diagnosis from the negative or positive results of our tests, these tests, nevertheless, designate certain pathological conditions which are especially prone to occur in cases of carcinoma. In order to give the laboratory findings their true diagnostic value, it is necessary to have a clear perception of the condition upon which these tests are based and, the clearer this perception, the more do we realize the importance of combining the laboratory results with the clinical aspect of the case before making our diagnosis.

Discussion.

DR. F. GREGORY CONNELL of Oshkosh:—In discussing this all important subject which has been so well presented by the essayist, there are a number of elementary facts which should be emphasized.

Carcinoma is a most common pathological condition, and one-third of all carcinomata occur in the stomach. There is no medical treatment for

cancer. Complete removal of the neoplasm, with all the infected lymphatics, cures the disease.

The vast majority of gastric carcinomata are improperly treated, due to the fact that a diagnosis is not made, or is made at a time when radical treatment is not available. Therefore the necessity of early diagnosis.

But because of the clinical history of the disease, with our present knowledge and present methods, an early diagnosis is rarely possible. A diagnosis is possible, but it is late—an early diagnosis is merely a suspicion.

Dr. Deaver puts it rather strongly when he says:

"Every case diagnosticated positively as gastric carcinoma before operation is a disgrace to the attending physician, providing he has had the case under observation for more than a few weeks."

The symptoms which lead to the suspicion of gastric carcinoma are those of chronic gastritis, which Dr. Ackermann has well presented; but these symptoms should be divided into two classes, one in which the onset is abrupt, and the other in which there is long continued history of "indigestion," or "dyspepsia," with irregular intervals of relief, and with or without a previous diagnosis of gastric ulcer.

We have been taught that the former class was typical, but recent investigations show that the second class is much more common. We are learning to place less stress upon the age of the patient and more upon the length of the clinical history.

An early diagnosis presupposes a diagnosis before a tumor is demonstrable. All tumors of the stomach are not carinomata, but every tumor of the stomach, the patient's condition permitting, demands exploratory laparotomy.

In these early cases the important diagnostic data are the previous history and gastric analysis. Gastric analysis in the first class of cases, will usually reveal the absence of hydrochloric acid, the presence of lactic acid, and impaired motility. Such findings with the proper history are most suggestive but not proof positive of malignancy.

In the second class, the result of gastric analysis is most unsatisfactory, because of the presence of hydrochloric acid until late in the course of the disease. The Boas occult blood test is too new to express a positive opinion as to its value; there are many possible sources of error, but a constant negative finding is most significant.

After arriving at a suspicion of gastric cancer, the next step towards a diagnosis will consist in exploratory laparotomy. Such an exploration is not devoid of danger, but a comparison between the dangers of exploration and the dangers of allowing a cancer to remain, must be plainly presented to the patient, who will choose; and if exploration is refused, then the responsibility of the case rests with the patient and not upon the physician.

Considering the frequency and seriousness of cancer, the slight danger of exploration, and the most unsatisfactory results of radical treatment after the diagnosis is arrived at by other means, leave exploration as the only rational procedure the physician can recommend. But such an exploration will not always make the diagnosis clear. Many cases of supposed malignancy, in which nothing has been done, or a palliative operation performed, have made perfect recoveries.

On the other hand, in some of the cases in which the microscopic appearance would not permit of a differentiation between benignancy and malignancy, the tumor has been removed, and even after careful and competent microscopic examination, the diagnosis remained uncertain.

But the exploration will reveal the presence or absence of a pathological lesion. If a pathological lesion is found, it will be either benign or malignant, and if malignant, it will be either removable or not removable. If no pathology is found, then the abdomen will be closed and practically no harm will be done. This will occur very often, but a mistake may have been made as to the location of the pathology, thinking it was in the stomach when it was elsewhere. In the vast majority of cases which lead to an exploratory operation, there will be found some pathological lesion, though perhaps not in the stomach, which will account for the symptoms. If a malignant tumor is found, the treatment is plain. If it is removable it should be removed, and partial gastrectomy will be performed. If not removable nothing further will be attempted, or some palliative operation, such as gastro-enterostomy, or jejunostomy will be carried out. But if a benign tumor is discovered there is a diversity of opinion as to the proper line to pursue. The most common benign tumor found is an ulcer, which has been most frequently treated by gastro-enterostomy; but unsatisfactory results have been seen so frequently of late from this method, that this operation is not done as commonly as of old.

Resection is more often done, which not only disposes of the ulcer, but also prevents a possible malignant degeneration of the ulcer or its cicatrix. This method in effect is the prophylactic treatment of cancer, and the rationale is well seen when we are told by Graham that in 145 cases of gastric carcinoma, 60 per cent gave a previous history of gastric ulcer. Many an ulcer when submitted to the pathologist will prove to be a carcinoma. And it is such cases that give the most encouraging result after radical treatment.

I have had one patient who was operated on two years ago, and a partial gastrectomy done for what was supposed to be an ulcer; but the microscope proved the growth to be cancer. The patient is perfectly well now.

This principle of prophylaxis has been extended to ulcer and cancer, by Rodman, who recommends that in such cases all but the dome of the stomach (the ulcer-bearing area) be removed. But because of the high mortality generally found to be 25 per cent. (only 15 per cent. in the hands of the Mayos) this has been considered too radical. But with earlier diagnosis, better technique, and a more judicious selection of cases, such a method will certainly have a place in the treatment of gastric cancer.

In conclusion, I would like to repeat and emphasize that exploration should be recommended after painstaking and repeated examinations lead to a suspicion of gastric cancer.

DR. ACKERMANN, (Closing discussion):—Dr. Connell has covered the subject so completely that there is nothing further left for me to say except that though we have no test which is pathognomonic of the early stage of carcinoma, these tests should, nevertheless, not be undervalued. The use of the stomach tube should be encouraged at the very first examination, and though we may not be able to differentiate the benign from the malignant

diseases by the examination of the stomach contents, yet it will suggest to us whether the case is really a surgical or a medical one.

Cases of stagnation, whether due to carcinoma or an old ulcer, should be operated upon immediately as there is nothing to be accomplished medicinally, and there would be no object in waiting till we get the more positive tests of carcinoma. If all such cases were operated on early the suffering of carcinoma patients would be considerably mitigated by the gastroenterostomy, and possibly the radical operation could be successfully performed in a large number of cases. For this very reason the stomach tube should be resorted to at the very beginning, though at the present time the tests in themselves cannot be considered decisive.

MANAGEMENT OF LABOR*.

BY FRANK W. EPLEY, M. D.

NEW RICHMOND.

What I have to offer you to-day is *not* in the slightest sense to be termed an essay, but it is just what I would like to get out of you and each of you—what you have learned by experience, however short, what you have tried and found true and expedient. It is not what you have read that *I want*. It is your own individual personality, if I can get it. This is what I offer you.

It would be impossible, in the short time which I ought to occupy in this meeting to more than just touch upon some of the most salient points of importance covered by the term Labor.

Labor is a natural process set up in the uterus to cast off the ripe ovum at the proper time.

This is, approximately, 280 days after the fecundation of the ovule. Exactly when this took place, it is always impossible to determine, so we should be very careful how we interfere with nature either to hasten or retard labor, when the gestation is far advanced. Let me say in the beginning just as emphatically as I can, that meddlesome midwifery is always to be condemned in the strongest terms. I believe it is unnecessary to explain what is meant by the term meddlesome midwifery.

It is not to be understood that this pernicious work is done only by midwives. Many a poor young woman has been made a cripple for life by forcing the early stages of labor by one in whose hands she has placed herself in this most trying of ordeals, her first maternity.

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When labor has actually set in, the pains are rhythmical and in most cases positive in their nature, and are seldom mistaken, though we are often called to find spurious pains, simulating the natural positive labor pains so closely that it requires an examination of the cervix to enable us to distinguish them from the real thing.

Until the real labor pains have actually set in the patient should be encouraged to patiently wait.

If the pains are weak and ineffectual after the labor has begun, a few one or two grain doses of quinine administered hourly or half hourly I have found to be not only harmless but very helpful in promoting efficient uterine contractions, and at the same time acting as a general tonic. Further than this I never go either medicinally or mechanically, unless certain that the forces of nature are crippled or some grave complication is threatened.

PREPARATION OF THE PATIENT.

If there is time she should have a good general bath. The hair about the external genital organs should be clipped with scissors down to a quarter of an inch in length, and the parts given a good scrubbing with warm sterile water and green soap. If the lower bowel is loaded, a soap and warm water enema should be given and repeated if required to secure a complete evacuation. The bladder should also be emptied, the night dress turned up under the shoulders, and a folded sheet pinned about the waist like a shirt, *and this is all.*

It is or ought to be a perfectly physiological process that is about to take place, and great care should be taken to prevent all grave apprehension on the part of the patient. She should be assured that what she is about to do is a very common affair, and her attention called to the fact that a great many people have been born into the world and that this is only one more. The shaving of the vulva is to be condemned. It is unnecessary, uncalled for, and pernicious in that it creates the impression on a timid patient that she is about to undergo a severe operation. Simple cleanliness is ample, and is a natural process. If it is desirable to go further than this, the first and by far the most important and only effectual thing to do is to sterilize the copulating organ every time before its introduction into these sacred precincts.

The *Bed* should be made up with clean sheets in the ordinary way, except that a few layers of paper, say eight or ten sheets of common newspaper should be laid under the lower sheet and next to the mattress. Over this sheet lay another pad of newspapers which

have been basted together, and upon this lay a folded sheet or cotton blanket.

All this can be done within ten or fifteen minutes, and without in the least exciting the patient's apprehensions.

All voluntary efforts at expulsion must be discouraged until the mouth of the uterus has become completely dilated, when, if the membranes remain intact, they may be ruptured and the patient encouraged to make voluntary effort at expulsion.

When rupturing the membranes, a common wash basin or small pan may be held in front of the exit; this will many times prevent a very wet bed.

After the expulsive pains have been in progress for some time, if the baby's head does not seem inclined to enter the strait, I request the patient to turn over on her side and "curl up like a caterpillar".

This change of position promotes rotation more than any manipulation can and the labor is frequently terminated quickly.

One assistant at the bedside is enough. More than this are in the way and tend to vitiate and make the air stuffy. The husband's place is sitting sideways on the bed with feet on the floor. The patient on her back with her knees drawn up. Then the assistant, sitting close to the feet of the patient, turns a quarter way around when a pain comes on, leans forward, facing the patient, a shoulder braced against each knee and hands clasping those of the patient.

In this way she feels that she is supported on all sides, and the inclination to toss about on the bed is reduced to the minimum.

Between the pains the hands are unclasped and the assistant sits upright or leans back against the foot board.

This leaves a place for the doctor at the side of the bed, where he may sit or kneel as he chooses. A small box about a foot or a foot and a half high gives him a very restful position, and he reaches the patient under her flexed knees. In this position the labor can be terminated with a minimum amount of ado and fatigue to all parties.

If the labor progresses till the head is resting against the perineum, and then all efforts seem fruitless, a good and safe rule is to apply the forceps at the end of a couple of hours and terminate the case.

This rule, of course, must be flexible. Forceps should be applied: if convulsions occur, if the patient shows unmistakable signs of exhaustion, if the child is in danger from any cause, if the contractions cease, or if the maternal parts become hot and dry. In short, the indications for the application of the obstetrical forceps are varied and numerous. They are indicated, when from any cause, in the judgment

of the physician in charge (and he alone is to be sole judge) the patient becomes unable to terminate the process with perfect safety to herself and child. They should never, however, be applied except in the most urgent cases until the uterus is fully dilated.

APPLICATION.

The patient is turned across the bed, on her back, with hips projected well over the side of the bed rail, each foot supported by a chair or an assistant sitting on the edge of the bed.

The blades as they are introduced should slide easily into place without the use of any force, and, when in place properly, they will *fall* into lock, and no force should be applied at traction unless they do so fall into lock, when no injury can possibly result to the mother or child.

After each effort at traction, the blades should be gently unlocked and readjusted, to be assured of their proper application to the head of the child.

The obstetric forceps is an instrument, the legitimate use of which is to assist nature in the accomplishment of a natural physiological process. It should be simple in construction, light, but very strong, so as to prevent springing. In fact it should be as nearly absolutely rigid as possible without encroaching too much upon the capacity of the pelvic canal.

The lumbering creations which have been invented and placed upon the market with high sounding "Axis Traction" names are suggestive of a traction engine hitched to a lawn mower in a cemetery. They are absolutely unnecessary and their use pernicious.

The very best possible aid to nature in extreme cases, is an educated hand. This is available always, and can be used effectually when all else fails. One pair of Professor De Laski Miller's jointed forceps in the hands of the author have fulfilled satisfactorily all indications for their use for the past thirty years. They can be introduced and properly applied to any case where forceps are indicated, and traction can be made in any and all definite accurate directions possible with any forceps now made, and with more positive results.

It is taught that chloroform is never harmful to a woman in labor. I have become satisfied that this teaching is wrong. I can but believe that when administered over a period at all extended prior to the completion of labor, the post-partum, tonic contractions of the uterus are weakened, and internal bleeding in greater or less degree is encouraged.

I am sure that I have observed this in later years, and I have come to use it now only during the last few moments of supreme suffering while the head is passing through the vulva, to enable the patient to refrain from forcing the delivery when these important parts are already under extreme tension and liable at any moment to suffer extensive laceration.

If a tear does occur, and it does not involve the muscular structures but only tears the skin, it should be let alone. On the other hand, if it does involve the muscular structures, it should be repaired at once, very carefully and thoroughly, by a sufficient number of deeply set sutures of pykotannin catgut or other antiseptic material which will be absorbed but slowly.

Discussion.

At the end of the paper Dr. Epley said:

As regards preparation of the nipples, I have resorted to a homely expedient which I have never heard suggested elsewhere. I was brought up on a farm and used to milk heifers and get kicked end over end. Why? Because their udders were tender and it hurt them to be milked, and the udders would become cracked; but I remembered that after the udders became toughened by manipulation, the heifers enjoyed being milked; and I thought I would try this plan on the next young mother whose case I had. I did so, and I was happily rewarded by seeing that young mother nurse her baby with perfect pleasure, and from that day to this, whenever I have been able to get the patient in time, and when she has followed my directions, viz, massage pure and simple but extreme and thorough, a cracked or sore nipple has never occurred.

DR. J. P. COX of Superior:—I have enjoyed the paper very much indeed. I think the old fellows who roam around in this neck of the woods, sometimes have experiences that the fellows who have access to the hospitals and to lots of counsel and proper nursing, are deprived of entirely.

As to the preparation of the patient, the doctor says nothing about the bedding. Now, I think that it is preeminently proper and also feasible, even in isolated country districts, for a man, if he cannot have the house aseptic, at least to have the bedding and the clothes properly boiled. I have been called into houses in this part of the country where they did not have a clean washdish or towel. In regard to aseptic bedding, I think the best way for the country practitioner to secure general asepsis, is always to carry with him an obstetrical cushion. In that way no matter how dirty the bedding may be, after thoroughly cleansing the body, if he has his Kelly pad with him it is generally possible to complete the accouchement without any soiling of the bedding.

These things are entirely different, as I say, in the case of the country and of the city practitioner. If he has a Kelly pad, and has any kind of a proper nurse at all, he can look out for cleanliness to a great extent.

My friend, the doctor, lays great stress on having the husband of the patient at the bedside, so that he can pull on the hands and all of that.

Now, if there is anything I detest about the bed of the accouchement, it is the husband. I want him to keep out of the way entirely, with his soiled hands, the same as with the filthy nonaseptic nurse that we usually get. Whenever I can carry these measures out I do so. I put a brace on the head of the bed so that the patient can get as much pectoral extension as possible. It has a good moral effect in the first place; it has a very salutary effect on the heart, on the breathing, and all of that, but outside of that it keeps the meddlesome old lady out of the way entirely, and better than all, it keeps the husband away with his nonaseptic hands.

The doctor speaks about the traction forceps, and he does not like to use them very much. That has not been my experience at all. I like to use forceps in every case where they are indicated.

In regard to laceration, I think it is better, no matter if the tear is slight, to operate at once.

In regard to anesthetics, I had quite a serious experience lately with this preparation that they call hyoscin-morphin-cactus, and some other stuff of that kind. It is put up in the form of tablets. They told me I could give my patient a nice dose and she would go to sleep for two or three hours and wake up, and not know that anything ailed her. Well, I had a patient to whom I was called at 9 or 10 o'clock in the evening, whom I had attended ten or twelve times before; she was a very nervous woman. At 9 o'clock I gave her one of those tablets. At 10 there was no effect noticeable at all, and your beloved pastor was at a loss to know what to do. At 11 o'clock he gave another tablet, and at 12 the patient was in an absolutely cyanotic condition, and at 12:30 I made a high forceps delivery, and the child was in an absolutely cyanotic condition, requiring the most strenuous effort from that time till 5 o'clock the next morning to bring on proper circulation. The patient "came to" about 11 o'clock the next day; and I made up my mind that I would use no more of that cactus business at all, but depend upon the old time procedure of a large dose of morphine hypodermically given when the os is dilated to the size of about half a dollar, supplemented by the chloroform afterwards.

DR. HUGO PHILLER of Waukesha:—As our president has said, prevention is the best part of our whole profession, and in the lying-in room this precaution becomes of signal importance.

I was much pleased to listen to Dr. Epley's paper, because I consider him one of the old fellows. I consider myself an old fellow, and I think Dr. Epley gets pretty near to it also.

He does not advocate the use of chloroform; I would just as lief go to a lying-in room forgetting my Kelly's pad or my syringe and a great many other requisites, as to forget to put in my bag the Esmarch mask and the chloroform. I have found that the clear chloroform may be contra-indicated in some cases; but a mixture which is commonly called in my country the Vienna mixture, and which was used by Prof. Billroth in capital and minor operations, consisting of 11 parts of ether c.p., 12 parts alsohol c.p., and 77 parts of chloroform, Squibbs' preparation, by weight, and not by measure, I find very advantageous. It is a perfectly safe preparation. Very often, in the second stage, I give the mask into the hands of the lying-in woman herself, pour perhaps 10 or 15 drops of the solution on it, and tell her to inhale

it as much as she pleases. I thus get the effect of moral suasion and suggestion. It does not bring on surgical or any other kind of anesthesia, but it relieves the pain.

DR. JULIUS NOER of Stoughton:—I think, "There are more things in Heaven and earth, Horatio, than was ever dreamt of in our philosophy," and that is the trouble with this subject. It is too large, and involves too many things.

I might say a word upon two or three points. I think the management of labor depends first on a thorough knowledge of the anatomy of the female pelvis, and secondly, the physiology of normal labor, and the attention to the details of asepsis. 90 per cent of all labors will get along without any assistance whatsoever; but it is the abnormal labor that tests the knowledge and skill of the physician.

Now regarding books and the study of this thing beforehand: you cannot get along without books. A good book is a record of the scientific investigations and studies of those men that preceded us, and they are the ones we all have to study. Our own knowledge, observation and experience adds but a mite to the history of thousands of years' experience recorded in our scientific works.

The use of the forceps and the department of operative midwifery is an immensely large field by itself and cannot be intelligently discussed in an informal way.

A word about the anesthesia and I shall say no more. I shall later on refer to the subject of the proper management of labor perhaps, under another heading—a matter I spoke of and suggested last year when Dr. McCabe's paper was presented. I agree with the doctor that the use of chloroform is dangerous and should be attended to as carefully in labor as in any other place, and a little more so. It is perhaps not necessary in a great many cases. The patient should be carefully examined beforehand to ascertain if there are abnormalities in the kidneys, the heart should also be carefully examined and the metabolism of the patient looked after both before and after labor.

DR. A. D. GIBSON, Park Falls:—I come from a section of the State famous for John Dietz and noted for clover and babies. One day last June I had five cases of confinement. We have no nurses worthy of the name in our part of the state. We have well-meaning Marys and Marthas that come in and often interfere and do more harm than good. But in a good many cases the patient is left alone with her husband, and even he is often a minus quantity, and sometimes not a person in the room with us except the patient, who cannot get away from her dilemma.

I have usually prepared the bed a good deal as Dr. Epley has done; and I find that paper is a very good absorbent. I usually have rubber sheeting oilcloth or something under the sheet, and have the bed prepared the way I intend to leave it afterwards, and then on top of all that I use a folded blanket and sheet, and fill it in between with all the paper that I can use. That makes it very absorbent and as long as I must be my own nurse in the majority of cases, I can readily wash the patient and remove that pad, slip in a good pad, and the bed is prepared after labor has terminated.

In regard to the lacerations of the perineum, I also agree with the doctor. Minor lacerations involving only the skin and mucous membrane of the fourchette, I do not think should be repaired. If they involve the muscular tissue it is proper to repair them. Otherwise I think we get just as good results by not repairing them, and invariably if we do repair them we find that in the next pregnancy or next labor the parts are again torn and often torn worse than they were before, and I find that the parts are usually in better shape for a subsequent labor if skin lacerations are not repaired.

In regard to chloroform I use it in nearly all cases; very few women in my vicinity will allow me to attend a case without the use of chloroform. I use it very sparingly until the last few pains. During the last pain or so the patient is often completely anesthetized.

DR. EPLEY, (concluding discussion)—I thing there is very little to be said. The criticisms I accept as just and proper. I think though that in one or two instances, if I got the gist of the criticism, it is based on a misapprehension. Dr. Cox says I decry the use of forceps. I wish to disabuse his mind in that direction. I always like to use the forceps, when I can do so and have my conscience clear, to expedite the labor, but I do not use them for my own benefit, but always for the benefit of the patient.

In regard to the husband's hand, there is one thing that I always insist on when the husband is around, and that is that he keep his hands where they belong, and they do not belong under the bed clothes. I never could see how he could contaminate the patient after his hands were washed with soap and water, if he kept them above the bedclothes, and I am one of those who received their education from De Laski Miller, who always instructed us how to attend a woman in confinement without uncovering her. I am aware that the teaching is somewhat modified to-day, and probably many times, under the antiseptic and aseptic treatment methods that are used, it is necessary to uncover the patient; but I must confess that I am opposed to that procedure, because I know that timid women, refined women shrink from it—I know they do—I have seen them shudder. I have seen the clothes deliberately thrown back and everything exposed, in a house where there were only two rooms, and young people standing around. That was not in the city where we have things as we want them.

I don't know but what Dr. Noer thought that in my paper I said something against reading. I did not mean to say that. I meant to say that I did not like to come here to listen to what I can read in my office. I like to read in my office. I think we all like to read in our offices—and anything that I can read in my office I do not like to come clear across the state when I have not got the time to spare to hear it read here. That is the point I wish to make. I like to come here and get at your inner selves, just as I am willing to unfold to you my experience. I enjoy a love feast here with my conferes. All of us know if we will be honest with ourselves that it is not practicable to have love feasts at home, as we can have here, to get into one another's inner consciousness, thoughts and practices, with men whom we are in actual competition. But where we get the most for our journey here is when we get down and tell each other what we do and how we do it. Get up and criticize me if you want to; if you have a better way than I have I want to know it; do not hide your light under

a bushel. Just at the close of my paper, I spoke of the preparation of the nipple, I know that is good; I wrote a paper on that in Philadelphia and had numerous letters thanking me for that suggestion. It is a homely suggestion, but the young mothers appreciate it.

Blindness from Cerebral Thrombosinusitis Following Phlegmonous Tonsillitis. SEGGEL, Muenchen. (*Klin. Monatsbl. f. Augenheilkunde*, XLV, August-September, 1907.) In a robust soldier, aged 20, an acute intense exophthalmus of the right eye with swelling of lids and chemosis developed under headache, chills, vomiting and intermittent fever, together with a violent phlegmon of the right tonsil, which subsequently recurred several times. Almost simultaneously blindness and immobility of the pupil of the right eye set in, soon followed by the same symptoms in the left eye, however without exophthalmus. Two days after the occurrence of exophthalmus the right internal jugular vein was felt as a hard cord. On the 36th day of the disease a relapse of tonsillitis was accompanied by lung affections. Under mercurial inunctions the patient recovered within 2½ months, with atrophy of both optic nerves, total amaurosis of right eye and the preservation of a sector in the upper nasal quadrant of the left eye. The diagnosis was: thrombosis of the orbital veins with or without thrombosis of the cavernous sinus. The connection with the tonsil is this: The venous blood of the tonsil flows through the palatine vein into the internal jugular, above the entrance of the external jugular, communicating with the cavernous sinus indirectly through the superior petrosal sinus and transverse sinus, directly through the inferior petrosal sinus which anastomoses with the bulb of the vein. Apparently a thrombophlebitis of the palatine vein, caused by the purulent tonsillitis was propagated to the cavernous sinus and the ophthalmic veins, creating the right exophthalmus. Through the circular sinus of Ridley the left cavernous sinus and the intracranial portion of the ophthalmic vein were reached, perhaps by partial thrombosis, as there was no exophthalmus of the left eye. The case is exhaustively discussed with a review of similar cases from the literature. (C. Z.)

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EDITORIAL COMMENT.

POST-GRADUATE COURSES AT THE UNIVERSITY.

A most commendable effort is being made by the University of Wisconsin authorities to enlarge the scope and increase the utility of the medical sciences taught at Madison. The first two years of medical instruction, as authorized by the last legislature, are now firmly established. In addition to the work done at Madison, however, it is proposed to give the physicians of the state the opportunity of acquiring information concerning the newer additions to medical knowledge by means of "home-study work correlating with short, practical laboratory courses at the University." "It is intended that these departments (the scientific branches taught) shall not confine their activities alone to imparting instruction to medical

students, but that they shall also be active in scientific investigation, and shall be centers for the diffusion of the newer knowledge to the people of the state, and especially, to the medical profession."

If physicians, in sufficient number, avail themselves of the excellent services of these well equipped laboratories and of men as skilled as are those in charge, these post-graduate courses will prove of inestimable value. The opportunities thus offered for the diffusion of knowledge bearing upon the advances of the past decade, ought not to be neglected.

WISCONSIN'S PART IN THE INTERNATIONAL CONGRESS.

UNIVERSITY OF WISCONSIN.

Madison, Wis., Dec. 14, 1907.

To the Medical Profession in the State of Wisconsin:—

As you are no doubt aware, the National Association for the Study and Prevention of Tuberculosis in the United States sent an invitation to the International Congress on Tuberculosis at its meeting in Paris, 1904, to hold the next Congress in this country. This invitation was accepted and the first International Congress of the kind ever held in America will take place in Washington on September 28, 1908. We propose, if possible, and as Americans, we know it will be possible, to make this the greatest Congress on the subject ever held in any country.

To accomplish this object, every state must take its full share of the burden and we must realize at the beginning that we have no small task before us. The President of the United States, and the Secretary of State, as well as the Departments of the Army, Navy, and Public Health and Marine Hospital Services, have attested their interest, and the Governors of practically every state in the Union have also given their support to the movement. Some of them have already gone so far as to write letters to every public department and institution within their borders. A committee for the State of Wisconsin has been appointed by the authorities of the Congress to prepare for the representation of this state at the Congress.

This committee has the power to enlarge itself, and at the next meeting strong members will be added to its present numbers. Wisconsin is well to the fore in the measures it has already taken for the prevention of tuberculosis both in cattle and in man. The State Sanatorium has recently been opened, and a number of private institutions are in working order, showing that the interest in the suppression of this terrible plague is widespread. It remains only to direct

and centralize the interest already shown, to make Wisconsin take a leading part not only in the proceedings of the Congress at Washington, but also in the exhibits, which will form a great feature of the Congress.

We hope to see every municipality in the Commonwealth, as well as every newspaper take an active part in this campaign. We already have the promise of aid from a number of the prominent boards administering state institutions. We especially urge the medical men of each community to take part both through their local societies, as well as personally, in this Congress, and at the present time to aid the state committee in getting things under way.

Those interested in the movement may obtain full particulars, with the preliminary announcement of the Congress, by applying to Dr. John S. Fulton, Secretary General, 714 Colorado Building, Washington, D. C. The officers of the state committee will also take pleasure in furnishing information concerning the Congress to interested parties. With the backing of the profession and the state, we feel that Wisconsin's representation will not suffer by comparison with that of any other state in the Union.

Yours very respectfully,

MAZYCK P. RAVENEL, M. D.

But one meeting of the Wisconsin Committee has been held and the proposed plans were merely sketched. Dr. Ravenel was elected chairman and Dr. Dearholt, secretary. Other officers and new members will be elected at the next meeting. It may be said at this time, however, that the work that Wisconsin can and must do, will require an almost perfectly organized state. Every community, no matter how large or how small, should take part in this crusade.

When the exhibition of the National Society for the Study and Prevention of Tuberculosis was held in Milwaukee, there was an attendance of about 54,000, which record has not been approached in any other city. Since that time, a $25,000 philanthropic sanatorium has been opened on the Blue Mound Road and a large number of patients successfully treated.

Milwaukee's Common Council has taken a wonderfully intelligent interest in tuberculosis, voting to defray the expense of the National Exhibition, about $1,000, and later passing an appropriation of $5,000 for the philanthropic sanatorium. Every public official should be interested in the great public question.

At the University of Wisconsin, a very creditable exhibition has

been collected which has been displayed in different parts of the state before a large number of laymen. This will probably form a nucleus for the Wisconsin Exhibit at the International Congress and will serve afterward for a traveling exhibit.

Everyone who has taken an active part in the public crusade against tuberculosis, has found an eager public anxious to learn what it can do to help in the Herculean, but at the same time wonderfully encouraging effort.

The committee, at its next meeting, to be held December 27th, at Milwaukee, desires the names of every interested physician and layman. Local sub-committees will be appointed to organize and carry on district work. Get into the movement and send your name to the Chairman or Secretary at once.

SLAUGHTER OF THE INNOCENTS.

Appalling statistics are given us by a special committee appointed by the Chicago Medical Society to investigate criminal practices. It is roughly estimated that 50,000 criminal operations are performed annually in Chicago, and that there are 150 private hospitals and maternity homes in which these practices are carried on and the born and unborn infants destroyed. One Chicago physician, while in jail last year, confessed to having successfully done 5000 operations. The report further states that "the midwives and doctors who commit these crimes are leagued in a union stronger than any labor organization. They retain lawyers who tell them just how far they can go and keep within the law, and what to do if they get into the hands of the law. In most of these cases babies are killed regularly, and their bodies are burned. The Dr. McLeod case in Boston revealed that one group of five doctors had performed more than 7,000 criminal operations during the year."

Few of us have any conception of the vastness of the criminality constantly going on in the 'underworld.' The above quoted report probably tells an unvarnished truth. Milwaukee's quota of abortionists is not small. While our laws prevent the unblushing advertisements that are still to be found in some of the Chicago papers, the suggestive nature of the announcements of many of the "diseases of women" specialists and lying-in institutions, leaves little to the imagination. But, unhappily, the abortionists are not confined to the ranks of those who so openly proclaim their trade: the rank and file of the profession at large are the great offenders. The law cannot

easily reach these evildoers. The remedy must be sought more remotely; high standards of preliminary and professional training; scrutiny of the fitness of those desiring to study and studying medicine; and the weeding-out process generously applied—this will eventuate in a betterment of the moral tone of the physicians at large.

AID FOR STATE BOARD REFUSED.

Now that, by dint of a struggle the extent of which is known only to the principals, an efficient medical bill for the protection of the public against imposters, quacks and indecent advertisers, exists on the statute books, we are confronted with a crisis that seems to make the enforcement of this law difficult or even impossible. The State Board of Medical Examiners, though having in Mr. A. C. Umbreit a most excellent advocate, finds itself without sufficient funds to carry on the work of prosecution assigned to it, and, without financial assistance forthcoming, the law must become a dead letter.

The State Board's income is derived solely from the fees of applicants for registration, and the amount thus received hardly pays actual traveling and time expense. Appreciating the inadequacy of its income to meet the necessary outlay for its counsel, the Board appeared before the Governor asking that the state hire special counsel to help in the prosecution of those our laws are to reach. Strenuous efforts were made, but all of no avail. A few thousand dollars annually in aid of a cause that is just, would for all time rid our state of the undesirables and would make the Board unhampered in its efforts to curtail the advertising of the illegitimate.

But no, politics and political exigencies, personal reasons, or other considerations or influences, we know not what, have evidently blinded the governor to the merits of the issue, and he has refused to sanction the request for financial aid.

If the governor's refusal be based upon a disinclination to establish a precedent for expenditures, let him remember that the physicians have made this fight their battle-ground—not for their own protection, but for the public good and their own self respect. It may be hard to drive this fact into narrow-brained people's heads, but it remains a fact nevertheless. This request for aid simply means that the existing statutes—as vital to the safety of the people for whom they were enacted as are the pure food laws so rigidly enforced—will probably remain inoperative unless the state gives assistance.

Physicians are willing to, and do give of their time and their money more than does any other class—for the general good. But when it comes to laws, it would seem that the profession's duty is done when it has caused them to be enacted, and that the ways and means of their enforcement is the province of the State. We still hope that a solution of the perplexing situation will be found.

NEXT YEAR'S PROGRAM.

The Program Committee of the State Medical Society (Dr. C. H. Stoddard, Milwaukee, Chairman; Dr. Edward Evans, La Crosse; Dr. C. S. Sheldon, Madison) is preparing to make the session of 1908 a memorable one. A program consisting of clinics, addresses by one or more of the distinguished medical authorities of the country, a large and complete pathological exhibition, and a limited number of general papers by members, will be given. The meeting will begin on the last Wednesday in June, and the committee is anxious to secure as early as possible the promise of a number of papers from men who are working along original lines, either clinically or in laboratory. As the committee, in its selection of papers, will be restricted to about 12 or 15 contributions it is recommended that each member who is working upon material which may be available for this meeting, kindly notify the chairman at once, submitting to him a brief outline of his studies, or a suggestion as to their nature, so that a judicious selection may be made.

THE VISITING NURSE ASSOCIATION OF MILWAUKEE.

We print on another page of this issue of the Journal, the announcement of the Visiting Nurse Association of Milwaukee. It is with much satisfaction that the Journal embraces this opportunity to endorse this admirable movement for aiding in the uplifting of the standard of care for the sick in homes where it would, under other circumstances, be impossible to provide even the crudest necessities of sanitation, and nursing for those who are stricken with disease or suffering from accident in the household of the needy or even moderately well-to-do. Even the very thrifty and self dependent, often find, when sickness comes, the full services of a trained nurse wholly out of the question, while they can easily afford to pay for an hour's daily attention of the visiting nurse, this meeting their requirements; if unable to pay for care, they can receive it gratuitously.

The ordinary housewife even is wholly at a loss in case of sickness, and has but an inkling of what ordinary sanitation requires. The trained nurse does easily and quickly what the patient requires and affords at the same time an object lesson of incalculable benefit in the crowded and often squalid homes of the indigent. Many are the cases of sickness or injury that cannot or do not go to the hospital for treatment, which can be made comfortable in their own homes—can have their wounds dressed, their sufferings allayed and their sanitary requirements met by the daily or the occasional visits of the nurse; it is better in every way to have the care given in their own homes when this is possible. Thus cleanliness, comfort and hygiene, take the place of dirt, distress and infection, and the goddess Hygeia becomes a household divinity among the masses.

The visiting nurse acts only under the direction of the physician and is able thus to increase his usefulness and popularize his ministrations.

A benevolent Milwaukee woman had already maintained a visiting nurse for a year or more prior to the formal establishment of the association and was largely instrumental in promoting the new organization. Two nurses are now to be maintained and their number will doubtless be increased in the near future. During the year 230 patients were cared for and 1,964 visits made. There are already 200 visiting nurse organizations in existence in America.

CALUMET COUNTY MEDICAL SOCIETY.

A special word of recognition is due the Calumet County Medical Society for enthusiasm and activity displayed in its work. At a recent meeting ten out of a membership of twelve were present, and of these all but two came from distances ranging between eight and twenty miles. This society has taken in practically all physicians in its county and judging from the secretary's communication, fulfills the object of such a society—that of clearing the atmosphere of differences and bringing about an agreeable *entente cordiale* among the reputable practitioners of the district.

NEWS ITEMS AND PERSONALS.

Dr. E. F. Dodge of Waunakee, died on October 24th, of consumption.

Dr. Horace B. Frink, an old resident of Milton Junction, died on November 20th, aged 83.

Dr. R. S. O'Connell, one of the leading physicians of Manitowoc County, sustained a stroke of paralysis, at his home at Cato, on November 22d.

Dr. Charles R. Bardeen, Professor of Anatomy, has been named dean of the newly established medical department of the University of Wisconsin.

Dr. Albert Cory, for many years a well known physician of Viroqua, died at his home in Chicago, where he removed a few years ago, aged 52 years.

Dr. F. Gregory Connell of Oshkosh has been appointed First Lieutenant and Ass't Surgeon of the 2nd Regiment, W. N. G., succeeding Dr. W. A. Gordon, Jr., who died recently.

Dr. Alois Graettinger died on October 23d at Los Angeles, at the age of 73 years. Dr. Graettinger was an old resident of Milwaukee and left eight years ago to go west for his health. He came to this country in 1857 from Bavaria.

To Unsex Criminals. The National Purity Congress, at a meeting held at Battle Creek, Mich., on Nov. 6th, considered a resolution favoring the unsexing of criminals which, after a very warm debate, was finally adopted, the men delegates voting largely against it while the women favored it.

Dr. Walter Hand, who came to Milwaukee in 1858, died at Milwaukee on November 7th, after a long illness, aged 82 years. Dr. Hand was born in Worster, Ohio, in 1825, and after graduation practiced medicine for a few years before coming further west. He established himself in the wholesale millinery business and retired 20 years ago.

Dr. W. A. Gordon Honored. At a banquet tendered Dr. Gordon, superintendent at the Northern Hospital at Oshkosh, on November 11th, there gathered a host of admiring friends from all parts of the state. 30 toasts were responded to, the speakers considering the many sided Gordon from the various sides in which he has achieved distinction.

Dr. Wm. A. Gordon, Jr., died at Oshkosh on December 10, of pneumonia, after an illness of about one week. He was the only son of Dr. W. A. Gordon, for many years superintendent of the Northern Hospital for the Insane. Dr. Gordon graduated from the Oshkosh Normal School and later visited the University of Chicago. He was graduated from the Rush Medical College in 1903. Besides being a member of various fraternal organizations, he was assistant surgeon of the Wisconsin National Guard. He had made several able contributions to medical literature. Dr. Gordon had before him the promise of a very successful career, and his early death falls as a very severe blow to his family, and to the medical profession of Wisconsin.

The State Tuberculosis Sanatorium at Wales, Dr. Chester A. Paull, superintendent, was formally opened on November 7th. The institution has accommodations for forty patients. Later the capacity of the sanatorium will be doubled. At present the institution consists of two main buildings known as the administration building and the refectory, and two "shacks," one for men and one for women. Only persons afflicted with tuberculosis in its incipient stage will be received at the sanatorium, and the maximum period of residence will probably be fixed at six months.

If he is able to pay, each patient will be charged about $10 a week for his care and maintenance at the sanatorium, and if he is unable to pay, his county judge may order his commitment at county expense of $5 a week. The state so far has spent $110,000 on the grounds and buildings of the institution.

SEXUAL INSTRUCTION FOR BOYS.

An editorial in the October JOURNAL entitled "Sexual Instruction of Boys" in which we disapproved of the stand taken upon this question by the eminent psychologist, Dr. G. Stanley Hall, in an article published in the *Ladies' Home Journal,* has met with considerable criticism.

With a view to obtaining other opinions, we have asked several physicians to consider the question from the standpoint of their own conviction. The two letters received (from Drs. Dewey and Kempster) are printed below. In addition we print two other articles that have been submitted to us criticising our expressed views.

We invite a further free discussion of the subject, and desire to place our columns at the disposal of all who may wish to make comment. No topic is more important to the individual, has a deeper bearing upon society, and is more vital to a nation's life, than one that deals with the development of the child. It is a many-sided topic, and therefore must be viewed from many standpoints.

INSTRUCTION OF BOYS ON SEXUAL SUBJECTS.

There is a great amount of discussion at present of the question whether instruction on sexual subjects should be given the young, and as to the time and manner of imparting such instruction.

The control of sexual activity furnishes one of the fundamental problems of humanity. Mastery of this force is a characteristic only of the highest type of man. In the lower walks there is no question of mastery. The reproductive energy is master and holds the animal realm in serfdom. This generative force is in the moral world what fire is in the material world—"A good servant but a bad master." Like fire it ruins the homes of men. But to man is also given power over his passions, though dimly felt and weakly exercised, and we may well believe that if our boys and girls can be brought to manhood and womanhood unimpaired in purity, their lives will be raised to a higher plane.

The labor of control and regulation of sexual passion may be compared to that of governing the torrents of the mountains and the floods of the rivers. Dams and reservoirs must be built for them with infinite expense and pains. Thus may the soil be reclaimed and irrigated and fruitful industry prevail, where otherwise destruction and

ruin held sway. It was but natural that these protective powers were clothed with mystery and awe and abjectly worshipped in the primitive world. Today, after man has gained a fancied empire over nature, he still suffers as inexorably from his own passions as in the rudest ages—indeed more—because all the refinements of civilization do but intensify the harm and mischief of license and incontinence.

In looking around the world, we see some faint beginning of the inward reign of chastity and continence, but for the most part, only a semblance of outward order and control is maintained, while beneath the surface passions smoulder without restraint and constantly burst their bounds with volcanic fury.

Applying these facts to the young, we see that if mature life is so ill-regulated, there cannot be much appreciation of the requirements of childhood; and such indeed is the case. Few children grow up in innocence and purity unimpaired. Fortunately, in this respect childhood needs—more than anything else—to be let alone. If evil suggestions and influences can be kept aloof and healthful activity maintained, this is all that is necessary prior to the years of developing manhood and womanhood. The general run of boys and girls require only this, though certain precocious and abnormal individuals must be dealt with as exceptions.

Prof. Stanley Hall, in a recent article in the *Ladies' Home Journal*, advises explaining the phenomena of reproduction, especially maternity, to boys of seven and nine years. We incline to the belief, however, that more is to be gained as a rule by promotion of healthy and normal life from which thoughts and sensations of a sexual character are excluded. Rather than direct attention to these subjects, we would fill the daily life so as to draw attention *away* from them. The exceptional boy who precociously exercises himself with these ideas, requires especial care so that he may be safeguarded himself and any undue influence upon companions forestalled, but prior to puberty it is only the exceptional boy who need be a source of solicitude or need have these matters explained to him. Indeed, it is questionable whether such explanation as is possible may not rather stimulate curiosity in the unstable or precocious which nothing can satisfy, but which will lead still further astray. Some would be impervious and some would make no good use of their knowledge.

We well remember fifty years ago the assembling of the boys in a large boarding school to have read to them an account of the evils of sexual vice. The master read from a book which painted a picture of disease, madness, idiocy, decadence to which in some mysterious way

we were all liable. Aside from the impression made upon most of those present—which was one of confusion and wonder—we had occasion in after years to know that in certain cases there was no deterrent effect but evil conduct continued. In other cases a nameless terror was called forth not unlike that produced by quack advertisements, about "lost manhood", etc., and boys more or less ignorant, conscious of errors (from which perhaps few boys escape) fancied their everlasting doom was sealed, and suffered agonies of remorse out of proportion to their guilt. Some of these no doubt profited by their warning. It is difficult to tell how much good was done. To most of the boys the lesson was less than Greek; they knew the Greek A B C but not that of sexual life. We wonder whether with our present knowledge we could have looked over the school, detected certain "black sheep" and sent them away to the great advantage of a few of the rest. But, fortunately most average boys everywhere prior to 14 or 15 are inaccessible to the allurements of sexual sensuality; they may, however, have thoughts and images implanted which at a later time awaken evil impulses.

It is important for parents, teachers and medical men to understand and carefully observe the indications of anything sexually abnormal, to be on such frank and friendly terms with their wards that they can discuss these subjects and preserve a strong influence, inspiring them to manly and cleanly lives.

As for the perverted and abnormal, a close observation by intelligent and instructed masters and medical men would recognize them and eliminate them from among their "wholesome brothers" to a great extent. The perversities of auto-erotism (solitary vice), of homo-sexuality (sexual impulses toward the same sex), as well as illicit indulgence in normal relations bringing danger of serious and even ultimately fatal disease—the possible existence of all these requires to be appreciated and needs the wisdom of the serpent and the harmlessness of the dove. Individuals who are inherently perverted it may be difficult or impossible to reclaim, though faults of constitution may be successfully resisted. It is often difficult to tell where disease leaves off and depravity begins, but both the one and the other if present in boys, render them improper and dangerous companions for the innocent. All points of contact should be closely scrutinized.

Extensive scandals have grown up and reached the stage of public disgrace in all the larger cities of Europe and among men supposed to be of high culture and civilization, the latest in Berlin, fraught with injury to the state and names of high renown. A similar disgrace was

unearthed in London years ago. Fortunately, no such extensive degeneracy has appeared in our country, though individual instances abound. It is probable that vices of this nature are a survival from paganism and oriental life, but they are intensely contrary to the genius of Christian civilization. Only successive generations of progress and enlightenment can eradicate these evils.

With the onset of sexual potentiality and the period of adolescence (14 to 18 years) a period of risk for the boy and of strain upon the brain and nervous system, even of the robust, arrives. It is a time when the neurotic and unstable youth is especially prone to break down, and many cases of nervous invalidism, even of insanity, develop. This is the time when it is desirable to impart instruction. The boy should learn from his father, his physician or judicious friend, the sacredness of his developing powers, the importance of chastity and a cleanly, busy and hygienic life. All that Professor Hall recommends, I hearily endorse.

Here it is desirable to correct a popular misapprehension. There is a prevalent idea that secret vice is a common cause of insanity—in fact one often hears a lay opinion that masturbation is the most frequent cause of insanity in the young. It is probable that this view grows out of the fact that very generally in insanity sexual thoughts and acts are observed. This, however, may be and often is simply the result of the fact that the inhibitions of modesty and reserve, natural in health, are removed by the loss of reasoning power and self control, hence the most imperious of the passions comes boldly to the front. And it is perfectly true that many insane persons appear libidinous and lewd in conduct and language who have never been so in health, but have been models of continence and chastity.

Furthermore, the fact that any youth indulges in the practice referred to, to a great and immoderate extent, and that health and reason are destroyed thereby, shows a defect in brain and constitution that antedates both the practices and the insanity and is the predisposing cause for both. It is extremely rare that this vice will be practiced till health is seriously affected by any normally constituted person. On the other hand the greatest conceivable excesses of this kind may be and are practiced without producing insanity, though brutalizing and morally ruinous in a high degree.

Finally, we would not make light of the importance of everything that teaching can accomplish although realizing that the field is limited in which it can act. It would seem that the main task of teachers, parents and guardians is to supply the means of a hygienic

life filled with industry and normal and healthful recreations, to see that vicious suggestions are kept out, and at the period of adolescence to give judicious instruction.

Only a small beginning has been made in developing the high standard of morality and purity mankind will ultimately attain, when men as well as women will be actuated in their relations by justice and love of virtue rather than by law and lust, as is too much the rule at the present day.

RICHARD DEWEY.

The criticism of Dr. G. Stanley Hall's article in the September *Ladies' Home Journal*, which appears under "Editorial Comment" in the WISCONSIN MEDICAL JOURNAL of October, has been read with interest by the parents of two boys—who take issue with the views of the MEDICAL JOURNAL.

Perhaps a brief account of the history of these boys along the line of sex development may aid in proving Dr. Hall's position, the wise one.

These boys are well-born, vigorous and normal, but differ entirely in tastes and temperament.

It was felt that circumcision would prevent a possible chance of irritation, and so this was performed upon each child soon after birth. When the boys were three or four years old, they were cautioned in a natural manner, by the mother, against their handling themselves. When she put them to bed, she told them, as they grew older, that the habit made boys ill and kept them from growing—a telling argument to small boys who wish to grow big.

At about the age of eight, the older boy, quiet and reserved, began in earnest to ask the usual questions, and was told that, while a few facts could not be understood by him, he would be answered truthfully in regard to everything he asked. This was done, using animals for illustration. He was satisfied with this, but not so the younger, who, when he reached the age of seven, had almost abnormal curiosity about sex in all its many sidedness.

Fortunately the family moved into the suburbs at this time, and the child could be instructed in natural history, without placing undue emphasis upon the matter. He was plainly told how and where he was carried before birth, and was allowed to observe animals, watching the calving of the cows. This seemed to satisfy his insatiable craving for knowledge, until another baby came. This made imperative (he being ten years old) more explanation of the process of birth.

The oldest boy had the same chances for observation as the younger, but was less outspoken in his interest.

Both father and mother have seized every natural opportunity of impressing the boys with the danger of early bad habits. The older knows all that Dr. Hall advises, and turns frankly "to his father as his source of knowledge." He is a quiet, pure minded boy, who recently told his mother that "the boys didn't trouble him with unclean stories, because they knew he wouldn't enjoy them."

The younger boy, twelve years old, has had his curiosity satisfied, and has turned his attention to other matters. He lately said that "other boys wished their mothers would tell them what his had told him, because they couldn't find out what they wanted to know."

The family physician wishes the mother to state that these boys have lived quietly, with abundant sleep, simple food, and more outdoor exercise than most children, because of the location of their home. There is no trace of vicious tendencies, although your editor suggests that Dr. Hall in sketching just such boys "came upon a very vicious and a very precocious part of the world."

What they might have been had they been left in *supposed* ignorance, until high school age, it is not difficult to prophesy, and the average child sent out into our "fervid urban life" without the safeguard of knowledge, often destroys himself and blights his home.

* * * *

(The above was sent us by the mother of these boys at the request of their physician who takes issue with us. We are inclined to doubt the validity of these parents' experience as an argument, and for the following reasons: They (the parents) are not dealing with average children of school age, but with exceptionally gifted ones. These children are gifted because their parents are far above the average in intellectuality, because they themselves are by natural tendency and temperament more pure minded than the average of the same ages, and because their urban and more particularly their suburban life has given them an environment that made possible the excellent teachings of their parents. Exceptionally gifted children need no mentor, and we believe that, had these boys attended the city high school without the knowledge gained from their parents, one—the older—at any rate, would have shown himself proof against many of the sins of thought and act charged against the average child. Ed.)

An article written by Dr. G. Stanley Hall, in the September number of the *Ladies' Home Journal,* entitled "How and When to be Frank with Boys", contains some startling statements, at variance with the experience of many careful observers.

Some of Dr. Hall's expressions are in ambiguous terms, but they evidently convey his personal beliefs, although they do not possess the accuracy which carries conviction. He states first that there is a "sad percentage of early private vice". This may mean any number; as it stands it is unscientific and meaningless. Dr. Hall may believe that one case in a thousand is a "sad percentage", but the general tenor of his statements leads to the conclusion that his "sad percentage" means a much larger number, so large indeed that it menaces the well being of the oncoming youth of the country, and therefore he states that it is the duty of parents to impart to all children "from seven to nine years of age" a knowledge of the physiological laws concerning the processes of generation, embryonic life and parturition, subjects which have long puzzled older heads than those of seven and nine years, and really belong in the curriculum of medical studies.

Dr. Hall's article leaves the impression that his mental equipoise has been disturbed by reading harrowing advertisements in some "penny dreadful", and had taken his "reliable statistics" of the "sad percentage" from the same source.

It is a fact that the vice of masturbation has been a reproach since the days of Onan, and if practiced frequently, for a length of time, will in the end undermine nutrition and may result in insanity, but this is not as frequent as is popularly believed. Much more frequently the habit *results* from some disorder of the physical or nervous organization. It is true also that insane people not infrequently commit this act while insane, and cease to do so when recovered.

At the proper age, from twelve to fourteen years, according to development, parents may with propriety and profit speak some words of caution to their boys, about the unhealthfulness of this habit, but to impart information of such delicate character, to the extent outlined by Dr. Hall, to a child of seven or nine years, would assuredly stimulate unhealthy curiosity and result in positive harm.

Imagine a father gravely announcing to his seven year old boy the arrival of a little brother who had come forth from "his mother's body" and that "he grew there, and is brought forth in pain." Naturally a child's healthy curiosity would compel him to ask "How did the baby get into his mother?" "Who put him there?" When was he put there?" etc., etc., etc.

If Dr. Hall is the father of a healthy youngster of nine, will he kindly enlighten us, whether he instructed his boy upon the subjects indicated, and the explanations he made use of in so doing? The doctor is an authority upon psychology, and may have a vocabulary

suited to make such matters clear to children from seven to nine years of age.

Let us hope the editor of the *Ladies' Home Journal* will request Dr. Hall to explain his method of imparting this information in specific terms, meanwhile advise the JOURNAL'S numerous readers not to attempt explanations until they learn Dr. Hall's method.

WALTER KEMPSTER, M.D.

EDITOR, WISCONSIN MEDICAL JOURNAL.

Dear Sir:—The editorial appearing in a recent issue of the WISCONSIN MEDICAL JOURNAL on the 'Sexual Education of Boys' is in some respects unsatisfactory in its not advancing a remedy, and in other respects wrong in argument in condemning a method of bringing it before the public in a lay journal.

Remedies have been numerous from time immemorial and have been advocated by sects, communities and nations, but in the present instance we are concerned only with the bringing up of American boys and girls. Any remedy advanced must take cognizance of our educational methods, and must be different from that of other nations because of a more cosmopolitan public. Because of this co-education we are compelled to begin divluging things to children at an early age for fear of their own researches in the matter. Could we have profited by the experiences of older nations no such problem would now confront us. No doubt adult profligacy is as prevalent in other nations, but the danger of youthful contamination is less—owing to the greater educational requirements for youths. Application to study and athletics is so persistent that the time for impure thoughts is lacking and physical sexual excitation lessened. And not alone are the mind and body kept active, but the cause is missing, in an absence of daily association with girls, in whom the only modesty apparent is that which has been taught them, and is not prompted by any ill feeling of repugnance for unclean acts or subjects of conversation.

European nations are as intemperate in their passions as are we, but it is seldom that contamination need be guarded against in youths as is the case here.

It appears to one that Dr. Hall cannot be far wrong, when he says that "the greatest depravity in boys exists between the ages of seven and nine". It is an age when boys are in a state of transition from a mental and physical childhood to a social age. They are in a position where no great regard is engendered for the other sex, and refining influences are not easily assimilated.

One can have a practical example of this every day. Go to any school or watch any aggregation of boys and girls. First you will see the little ones, pure of heart and mind, with no preference displayed for any special form of amusement. There is probably some inclination on the part of the boys for boyish pranks, but as a general rule you will find them playing together, with no great dissimilarity in their likes in this respect. The next stage is just the age of which Dr. Hall speaks. The method of amusement has taken definite masculine form, and no longer do they care for the games or recreations which were mutually enjoyed by both. They not only cast off effeminate tendencies, but deride them. It is here that the boy embarks upon a dangerous course. Companionship is lost, and respect is still unengendered. His nature asserts itself, and degenerate influences have an open field for cultivation. Were our educational system not at fault he could be kept apart from these outside influences, that is, contact with girls for whom he has no reverence.

At a later age, twelve or fifteen, his nature changes. A desire to please the opposite sex is apparent; he becomes less dangerous as to impulses, and is amenable to the advice of a father.

It is in connection with this that I find your editorial in a measure correct. Much, one may almost say most, of this educational campaign, is being conducted in journals for women. The moral education of either boy or girl is not the province of a mother alone.

What to teach and tell boys and girls is the father's field as well as that of the mother. The field of neither should be limited, and no subject should be held up as so sacred to either boy or girl that the father or mother may not with impunity be admitted to intelligently advise them upon. Done tactfully, no subject unfolded to either boy or girl by mother or father should be looked upon as anything more than a desire to teach children the possibilities of a pure domestic life.

Vice can be combated neither religiously, morally, politically, nor socially, but can be domestically. Could all fathers be made to take an interest in their domestic duties we would have fewer boys uninstructed as to the rights of virtue, and fewer girls curious as to the mystery of gratification. Treat the subject as a natural law of propagation, as a licensed duty when the time comes; hold its transgression not as a horror to their eyes, but liken it to pity toward the girl, and dishonor to the boy. To cultivate in boys respect for virtue in womanhood seems to be the chief necessity. When they have learned that they are safe to themselves, and safe associates of girls.

E. J. EISEN, D.D.S., Milwaukee.

(We are of the opinion that our correspondent has been misinformed as to conditions obtaining—say in Germany where coeducation does not exist, and that he is therefore not justified in his deductions on that basis. It is our belief that segregation of the sexes in school has exerted no marked influence upon the morals of the children. We believe this because it is our conviction that the moral tone there is surely on no higher plane that it is here. Though there be other factors that deserve consideration—such as the bad influence of enforced military and garrison duty—the good influence of segregation in school age would be reflected in a life of greater adult purity. We question the existence of such. Ed.)

COMMITTEE ON PREVENTION AND CURE OF TUBERCULOSIS.

MADISON, WIS., July, 1907.

At the meeting of the State Medical Society held at Milwaukee in June, 1906, the following resolution was presented by Dr. C. A. Harper and adopted by the Society:

RESOLVED that, inasmuch as the National Association for the Study and Prevention of Tuberculosis has been organized and is in successful operation, and the numerous states have already organized leagues to work in conjunction with the National Association, the time has arrived when Wisconsin should be represented by a State League for the suppression of tuberculosis.

We, therefore, recommend that such a league be organized to include both members of the profession and the laity; and that a committee consisting of one member of this Society from each Councilor District be appointed by the president, whose duty it shall be to promote this organization in the furtherance of the work in the several districts throughout the state, and urge the county societies and various lay organizations to interest themselves in the movement; and that also a special committee of five be appointed by the president, together with the members from the Councilor Districts, to constitute a committee for the incorporation and organization of a State Association for the Study and Prevention of Tuberculosis.

Respectfully submitted,

Drs. C. A. Harper, Madison; C. H. Stoddard, G. E. Seaman, J. M. Beffel, J. W. Coon, Milwaukee, Committee.

The following Committee at large, has been appointed: Drs. C. A. Harper, of Madison; C. H. Stoddard, G. E. Seaman, J. M. Beffel, and J. W. Coon, all of Milwaukee:

FOR COUNCIL OR COUNCILOR DISTRICTS.

1st, B. M. Caples—Waukesha.
2nd, E. L. Kinne—Elkhorn.
3rd, Julius Noer—Stoughton.
4th, G. C. Buck—Platteville.
5th, A. J. Pullen—North Fond du Lac.

6th, W. A. Gordon—Winnebago.
7th, T. H. Miller—La Crosse.
8th, A. C. Mailer—De Pere.
9th, D. L. Sauerhering—Wausau.
10th, C. A. Hayes—Chippewa Falls.
11th, H. J. Orchard—Superior.
12th, Gustav Schmitt—Milwaukee.

VISITING NURSE ASSOCIATION.

We have been requested to print the following announcement in conjunction with the editorial calling attention to the subject, published in this issue. There are other cities in this state in which the same need exists for the establishment of visiting nurse associations. Possibly these articles may serve to call attention to this need elsewhere.

VISITING NURSE ASSOCIATION OF MILWAUKEE.

(Incorporated June 10, 1907.)

The undersigned persons having incorporated such a Society under the Laws of the State of Wisconsin, ask your personal interest and support in carrying out the plan of caring for the sick poor. House to house nursing among the needy is one of the most efficient modern means of teaching the public the laws of cleanliness, sunshine and fresh air, thus diminishing disease, and, as illness is the largest contributory cause of the great drain upon charity, the economic value of the nurse is at once demonstrated. As an agency in the prevention of the Great White Plague she holds undisputed sway. Her gospel of sunshine and fresh air serves to aid more than all other methods. The lack of adequate hospital facilities is another reason for the home-nursing plan, and then often there are other reasons why the sick one is better off at home.

Many chronic cases are happier at home, and from an economic standpoint it is the best place for them. Where the patient is the mother of the family, and the father is a laborer, the departure of the patient to the hospital often necessitates sending the children to institutions and breaking up the home life, a deplorable thing—for however poor, it is the natural and best environment for children; and in acute cases there is frequently an indisposition to being a free case in the hospital; and when there is a member of the family dependable and eager to learn how to care for the sick one, the case can be managed quite successfully. Or perhaps it may be some local condition requiring treatment, massage or surgical dressing, otherwise the patient may be well and in need of no other care.

All cases are visited as often as necessary, and the physician's orders carried out; during these visits the family are taught how to do what they can, which is, after all, the only way of being truly helpful.

The great need of a Visiting Nurse in the homes of the less fortunate classes in Milwaukee has been demonstrated in the last year, the nurse being supported by a private citizen. During that period 230 patients have been cared for and 1,964 visits. This fact made it desirable to broaden the usefulness of the plan by forming an organization. There are 200 public organizations of this kind in America.

The Association begins work with two nurses in the field, and aims to provide more as the need arises. $1,200 supports the work of one nurse for a year. Annual dues for Associate membership are $5.00, which may be sent to the treasurer, Mr. Jacob E. Friend, 1329 Wells Building. The members of the Board of Directors are Mrs. Francis Boyd, Mr. August Vogel, Mr. Edward P. Sherry, Mrs. Richard Dewey, Mr. J. E. Friend, Mr. Patrick Cudahy, Rev. Wm. Austin Smith, Miss Mariette Tweedy and Mrs. Howard Greene.

For further information, apply to the undersigned:

SARAH M. BOYD,
WILLIAM AUSTIN SMITH,
MARIETTE TWEEDY, *Incorporators.*

OBITUARY.

William H. Saunders, A. B., A. M., M. D., President of Kenosha County Medical Society, was born in Philadelphia in 1840, son of W. S. Saunders, merchant of that city, and later of Ann Arbor, Michigan. He received an academic education at Lodi, Michigan, and his degrees at the University of Michigan. In the year 1865 he graduated from the Medical Department of that University. He practised medicine at Davenport, Iowa, nine months, and then located in Lawrence, Kansas. He was Professor of Chemistry in the State University of Kansas for a period of eighteen months. He remained in Lawrence until 1875, and then settled in Kenosha, Wisconsin, where he remained in active practice until the time of his death, which occurred at his home, October 29th, 1907, after an illness of four weeks' duration.

RESOLUTIONS ON THE DEATH OF DR. W. H. SAUNDERS.

WHEREAS, once again, by the ruling of an allwise God, one of our number, after a long and useful life, has been gathered in by the Messenger of Him who doeth all things well,

WHEREAS his voice has been stilled, his place made vacant, and Dr. William H. Saunders has been called to his reward,

THEREFORE be it resolved, that in his death the Kenosha County Medical Society loses not only its President, but a valued member, a wise counselor, and an inestimable supporter and friend; whose kind, thoughtful, wise, yet unassuming acts have been of such great value in building up a prosperous and successful medical society among us.

BE IT FURTHER RESOLVED, that these resolutions be placed in the permanent records of this Society; that a copy of these resolutions be sent to the widow with our sincerest sympathy for her in her deep afflictions.

AND BE IT FURTHER RESOLVED, that these resolutions be printed in the Kenosha Evening News, and also that a copy be sent to the Wisconsin Medical Journal.

WILLIAM M. FARR,
G. WINDESHEIM,
A. VAN WESTRIENEN,
Committee.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President

Herman Gasser, Platteville 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

TERM EXPIRES 1911.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

TERM EXPIRES 1912.

3rd Dist., F. T. Nye, - - - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1913.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., C. J. Combs, - - Oshkosh

TERM EXPIRES 1908.

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - - Marinette

TERM EXPIRES 1909.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

TERM EXPIRES 1910.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

THE DISTRICT SOCIETIES.

The twelve Councilor Districts of the state are now nearly all organized, as contemplated in the original plan, and before long all of them will be represented by district societies holding one or more meetings in each year. These meetings are usually held as a union meeting with one of the county societies, and the first thought was that they should be a means of gathering together the best scientific work of the county societies, as well as securing a wider acquaintance and better social relations among the physicians of the whole district. This is good, but Chairman Boothby has hit upon a still better plan, and is carrying it out with excellent results up in the 10th District.

His idea is to make all these district society meetings into public health conventions, conducted jointly by the district societies and by State Board of Health, and to which the general public is urgently

invited. This is a capital suggestion and there is no question but that, in this way, a work of immense practical value can be accomplished throughout the whole state. It would afford a means of teaching and instructing the community in regard to matters concerning the maintenance of health and the prevention of disease about which there is much ignorance, and concerning which the profession ought to be able to speak with authority. The range of subjects would naturally be limited in a single day's program, but such subjects as the Prevention of Contagious Diseases, including Vaccination and the use of Antitoxin, Water and Milk Supply, Sewage Disposal, Tuberculosis, the Use of Stimulants and Narcotics, Diet, Patent Medicines, etc., could be presented from the physician's standpoint and discussed by the whole meeting. Such a plan, generally entered into throughout the whole state, would also react most favorably upon the medical profession and make for more satisfactory relations, and a better understanding with the laity.

The recent meeting of the 10th District at Eau Claire was a splendid object lesson along these lines. The beautiful Carnegie Library was the place of meeting. The instructive Tuberculosis Exhibit of the State University was on exhibition. The large audience room was crowded with citizens evidently deeply interested in these important problems of right living, and the splendid banquet in the evening at the Eau Claire Club House was a fitting finish to a most successful meeting.

Councilor Sauerhering of the 9th District writes that they are planning a similar meeting at Wausau in the near future. So let the good work go on!

THE MEDICAL DEFENSE PLAN.

The county societies are rapidly reporting on the plan of medical defense—most of them favoring it unanimously. It will undoubtedly carry with but few negative votes in the whole state. Since the expense is so small and the advantages so evident, it would seem that about the only ground for disapproval would arise from a misunderstanding of the provisions of the plan. There is some obscurity and ambiguity in the wording, but this came about by the advice of a Milwaukee lawyer who met with the committee. He urged that the plan should be so drawn up as to avoid stating directly that the State Society engages as an organization, to defend its members. To the lay mind this seemed a legal technicality of no force, since what the so-

ciety really proposes to do is to defend all proper cases up to the courts of last resort, and without expense to the applicant for defense. It will also aim to employ as good legal assistance as can possibly be secured. This is well known to everybody, without regard to the wording of the plan.

These facts, and the knowledge that the whole profession of the State is backing the defendant financially, effectually quash most of the suits before they are fairly started.

Those counties which have not yet voted on the plan are urged to take action at once, as the Annual Meeting of the Council will probably be held January 2nd, 1908. *C. S. S.*

ASHLAND-BAYFIELD-IRON COUNTY MEDICAL SOCIETY.

The annual meeting of the Ashland-Bayfield-Iron County Medical Society was held at Ashland December 13, when the following officers were elected: President, Dr. A. O. Shaw; vice-president, Dr. W. J. Griffin, secretary and treasurer, Dr. C. O. Hertzman; all of Ashland.

The report of the Committee on Medical Defense was unanimously adopted.

The Society voted an invitation to the 11th District Medical Society, to hold its semi-annual meeting in this city some time within the next two months. J. M. DODD, M. D., *Councilor.*

CALUMET COUNTY MEDICAL SOCIETY.

The annual meeting of the Calumet County Medical Society was held at Hilbert, December 12, 1907. Ten out of a membership of twelve were present, all but two coming distances ranging from eight to twenty miles, an attendance of which we feel inclined to boast.

Dr. C. G. Greengo of Chilton read an excellent paper on *Acute Rheumatism*, after which the business of the meeting was taken up. Dr. C. L. Vaughan of Hilbert was elected to membership.

The following officers were elected for 1908: President, Dr. C. G. Greengo, Chilton; vice-president, Dr. H. E. Luehrs, Hilbert; secretary and treasurer, Dr. L. Rock Sleyster, Appleton (re-elected); censor for three years, Dr. George E. Forkin, Hilbert.

The report of the Committee on Medical Defense appointed at the last meeting of the State Society was read and discussed, Dr. Mears of Fond du Lac, councilor of the district, discussing it at length. A vote was taken and *ten* votes were cast in favor of accepting the report, no votes against.

A proposal to consolidate the local district society with the Fox River Valley was discussed. Every member voted in favor of maintaining the individuality of the district society and requesting a district meeting at Hilbert during the coming year.

After adjournment a dinner was served at the Hilbert Hotel.

The Society has been a success in every way. Every physician in the county with one exception is a member and his application is held. It has

brought the physicians together, differences and misunderstandings have been settled at the meetings, and a spirit of friendship and fraternalism has been fostered. L. ROCK SLEYSTER, M. D., *Secretary.*

DANE COUNTY MEDICAL SOCIETY.

Dane County Medical Society met at Madison, November 12th, with the president, Dr. L. R. Head in the chair. Twenty-four members were present.

The program was as follows:

Quarantine Experiences with Diphtheria, Dr. J. I. Luby, Stoughton; discussion opened by Professor W. D. Frost. *General Considerations of Sanitation and Preventive Medicine from the Standpoint of Board of Health*, Dr. C. A. Harper, Madison; discussion opened by Dr. J. P. Donovan, Madison.

Dr. Harper's paper dealt with problems of public sanitation and preventive medicine and gave details of many of the recent discoveries which have influenced and enlarged the field of public hygiene and curtailed to some extent the work of the doctor. The essayist deplored the fact that though smallpox, malaria, diphtheria, yellow fever, typhoid fever, and tuberculosis were clearly preventable diseases, yet the community, including the physicians, were as a rule rather slow in adopting and especially in adequately enforcing preventive measures.

After a very general discussion a resolution was adopted instructing the Committee on Public Health and Sanitation to co-operate with Professor W. D. Frost, to prepare an ordinance for consideration and adoption by the City Council, which would insure wholesome and sanitary milk for the City of Madison. J. NOER, M. D., *Secretary.*

DODGE COUNTY MEDICAL SOCIETY.

The Dodge County Medical Society met at Fox Lake, November 4, 1907. Twelve members were present. In the absence of the president, Dr. W. E. Hallock, Dr. W. H. Watterson presided.

Dr. H. B. Sears gave a report of the meeting of the First District Medical Society which was held at Wales, Wis., and of his visit to the State Tuberculosis Sanatorium. This was followed by a general discussion of tuberculosis and the features of the Sanatorium. There was some criticism of the management of the Sanatorium because of the fact that only the incipient forms of pulmonary tuberculosis are to be admitted. The point made was that the incipient cases are the least dangerous to the general welfare of the public, and that they are most easily taken care of by the general practitioner; while the advanced cases are the ones that are continually spreading the dread disease we are trying to eradicate, and are the hardest for the physician to manage at home. On the other hand, all advanced cases were at one time in the incipient stage. Now to take the incipient cases and place them in a Sanatorium and educate them to take care of themselves and not infect others as well as treat them and probably cure them will be a step toward the solution of the great problem. The idea is that the advanced cases will in time eradicate themselves because the incipient cases will not so frequently become advanced cases and if they do they will know how to keep from infecting others. However, the general opinion was that some

steps ought to be taken by the state to take care of the advanced cases as well as the incipient cases.

At noon all enjoyed themselves with turkey and all of its accompaniments at the expense of the Fox Lake doctors.

During the afternoon session Dr. W. H. Watterson read a paper on *Locomotor Ataxia* and presented a patient. The patient was examined by all present and pronounced to be a very rare form of the disease. A full and free discussion followed and each one thought the case was worth going a long way to see. A vote of thanks was extended to Dr. Watterson for his clinic and the masterful way he has worked out the case.

The board of censors reported favorably upon the names of Dr. W. C. L. Zimmermann of Iron Ridge and Dr. E. S. Elliott of Fox Lake for membership. The Society voted unanimously to accept the report and they were elected.

Dr. H. B. Sears presented the subject of Dr. Fenger memorial fund which was laid on the table.

Moved, seconded and carried unanimously to thank the Fox Lake doctors for their hospitality.

The next place of meeting will be at Beaver Dam the 1st Monday of February, 1908.

GEO. W. DEWEY, M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

The fifth Annual Meeting of the Fond du Lac County Medical Society was held at Fond du Lac, November 13, 1907.

After partaking of an eight course dinner the meeting was called to order by Vice-president Scheib, and the following program presented:

Appendicitis; Diagnosis, Dr. D. J. Twohig; *Treatment,* Dr. S. E. Gavin.

President Burns was unable to be present to give the annual address.

The following officers were elected for the coming year: President, Dr. J. P. Connell, Fond du Lac; vice-president, Dr. J. M. Baasen, Calvary; secretary and treasurer, Dr. Flora A. Read, Fond du Lac; delegate to State meeting, Dr. J. J. Schoofe, Johnsburg; alternate, Dr. F. M. McGauley, Fond du Lac; censors, Dr. G. V. Mears, Dr. G. P. Boyd to fill Dr. Connell's unexpired term.

F. A. READ, M. D., *Secretary.*

GRANT COUNTY MEDICAL SOCIETY.

The regular meeting of the Grant County Medical Society was held at Platteville, December 12th, with seven members present. The meeting was called to order by the vice-president, Dr. J. H. Fowler.

The program consisted of two excellent papers, one on *What Does Disease Mean?* by Dr. H. Grasser, and one by Dr. F. S. Tuffley, on *Gonorrhoea.* Dr. E. A. A. Dunn of Platteville, Dr. J. E. Heraty of Bloomington, and Dr. A. W. James of Muscoda were elected to membership in this Society.

The report of the Committee on Medical Defense, appointed at the last meeting of the State Society, was read, and on motion, unanimously adopted by the Society.

The next regular meeting will be held at Montfort, the second Thursday in May.

WILSON CUNNINGHAM, M.D., *Secretary, pro tem.*

JUNEAU COUNTY MEDICAL SOCIETY.

The fifth annual meeting of the Juneau County Medical Society was held at the M. W. A. Hall, Camp Douglas, December 3rd. There was a large attendance, nearly every member of the Society being present, and the meeting was a very successful one.

The president, Dr. C. S. Smith, presented a most carefully prepared address which contained much valuable information and suggestions.

Dr. F. T. Field read a most valuable paper on *Dyspepsia*, laying special stress upon the various symptoms complained of by patients.

Dr. A. T. Gregory presented a paper on *Ectopic Pregnancy, with Report of Two Cases*, which were operated on with complete recovery in both cases. An interesting general discussion followed each paper.

Drs. Chas. O. Cron, and W. B. Parke of Camp Douglas were admitted as members of this Society.

The election of officers resulted as follows: President, Dr. F. T. Field, Elroy; vice-president, Dr. Thos. Gilluly, Union Center; secretary and treasurer, Dr. A T. Gregory, Elroy; delegate, Dr. W. M. Edwards, Mauston; board of censors, Dr. C. S. Smith, Elroy; Dr. E. H. Townsend, New Lisbon; Dr. J. B. Edwards, Mauston.

A. T. GREGORY, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its regular monthly meeting December 5, 1907, the president, Dr. A. Gunderson, presiding.

Dr. H. E. Wolf of La Crosse read an excellent paper on *Opsonic Treatment in Tuberculosis*, detailing the method of treatment and the results obtained by him in a number of cases of bone tuberculosis, tubercular peritonitis, tuberculous kidney, skin tuberculosis and tubercular sinuses.

Discussion followed upon the mechanism of immunity, and the availability of the opsonic treatment for the average general practitioner.

After the discussion the Society proceeded to the annual election of officers, which resulted as follows: President, Dr. D. H. Miller; vice-president, Dr. M. W. Dvorak; secretary and treasurer, Dr. E. N. Reed; censors, for three years, Dr. H. E. Wolf; for two years, Dr. A. Gunderson; all of La Crosse.

The next regular meeting will be held at La Crosse on the 1st Thursday in January. At this meeting there will be a Symposium on Puerperal Sepsis.

EDWARD N. REED, M. D., *Secretary.*

LANGLADE COUNTY MEDICAL SOCIETY.

The annual meeting of the Langlade County Medical Society was held in Dr. G. H. Williamson's office, December 7th, at 8 P. M.

Dr. J. C. Wright read a very interesting paper on *Diabetes Mellitus;* a very brisk discussion followed in which all members took part.

The applications of Drs. J. C. Wright, E. J. Donohue, and J. P. Pecival were presented and accepted.

The following officers were elected for the year of 1908: President, Dr. Geo. W. Moore, Antigo; vice-president, Dr. I. D. Steffen, Antigo; secretary and treasurer, Dr. H. P. Beattie, Antigo; censors, Drs. F. N. Watson and E. J. Donohue, Antigo.

GEO. W. MOORE, M. D., *Secretary.*

OUTAGAMIE COUNTY MECICAL SOCIETY.

The November meeting of the Outagamie County Medical Society was held at Appleton, on November 5th. In the absence of the president, the vice-president, Dr. Abraham, presided. Dr. A. E. Rector of Appleton read a paper on *Obstructions in the Nasal and Naso-Pharyngeal Passages, with some of the Attending Complications.* The paper was a most excellent one and the discussion was very general.

Dr. Shepherd who was to have read a paper on *Typhoid Fever, Diagnosis and Modern Treatment,* was not present nor had he sent his paper. Dr. G. A. Ritchie, on request of the chair, opened a discussion on the subject, which was participated in by all of those present.

The censors reported favorably on the applications of Drs. Charles Reineck, of Hortonville, and Charles G. Maes, of Kimberly, and on vote of the Society they were made members. The transfer card of Dr. Bernard Krueger from the Vernon County Society was received and on motion he was made a member of the Society.

The Secretary was instructed to communicate to the District Councilor that it is the sense of this Society that a district society be formed and that the Councilor be urged to use his influence to bring about such an organization. The next meeting will be held at Kaukauna on January 7th.

M. J. SANDBORN, M. D., *Secretary.*

SHEBOYGAN COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Sheboygan County Medical Society was held in the Elk's Hall, Oct. 14, 1907, with the president, Dr. O. B. Bock, in the chair and eleven members present. The application of Dr. C. U. Senn of Odell for membership was presented. Dr. W. H. Winchester presented a digest of the literature for the preceding few months and also discussed the feasibility of instituting a post-graduate work program in connection with our regular monthly meetings. This plan was considered favorably and on motion the president appointed a committee of three, consisting of Drs. Kingsley, Winchester and Scherr to investigate the subject and report on its practicability at the next regular meeting.

The secretary reported that 25 out of the 27 physicians practicing in this city had signed the agreement not to do contract practice. He also reported that one of the physicians who did not sign the resolutions had publicly stated that he would not do contract work for fraternal organizations, and as it was regarded by all that this statement was as good as a signature, considering the doctor's reputation for integrity, it was deemed that the agreement was so nearly unanimous that it would be effective. Dr. C. Tasche moved that the agreement become effective and be considered binding on all

the signers to the agreement. Motion seconded and unanimously carried. The secretary was instructed to provide each of the signers with a copy of the resolutions and acquaint him with the fact that the agreement had gone into effect. W. F. ZIERATH, M. D., *Secretary.*

(The resolutions adopted were published in the August number of this JOURNAL.)

MEETING OF DECEMBER 5TH, 1907.

Meeting called to order by the president, Dr. O. B. Bock, with eleven members and one visitor, Dr. Frank Detling of Superior, Wis., present.

A communication from Dr. A. T. McCormack, secretary of the Kentucky State Medical Society, concerning the use of nostrums by the medical profession was read and on motion laid on the table.

A communication from Dr. G. V. Mears, 5th district councilor, concerning the combining of the 4th, 5th and 8th district societies into one society, to be known as the Fox River Valley Medical Society, was read. The matter was discussed by the members present and it was moved that the secretary be instructed to correspond with the secretaries of the county societies composing the 5th district and ascertain the sentiment of these societies before action was taken by this Society.

Another communication from Dr. Mears was read concerning the meeting of the 5th District Medical Society in this county during the present month. The motion was made that the meeting be not called until the matter of joining the 5th, 6th and 8th district into one society be definitely settled.

Dr. J. R. Kingsley, chairman of the committee on post-graduate work, reported that his committee had not yet formulated a definite course of action in this matter and brought the various propositions considered before the Society for discussion.

No conclusions being arrived at this committee was continued to consider the subject until a future meeting.

The secretary read a communication from Dr. Charles S. Sheldon, secretary of the State Medical Society, concerning the admission of sectarians into the county medical society. Though the Society took no formal action in the matter it was the consensus of opinion that the Society had already established a precedent in this matter and that any legally qualified and reputable practitioner of medicine, regular, homeopath, or eclectic, whose professional, scientific and moral qualifications are above reproach, are both eligible and welcome as members of this Society, and that it was both legitimate and proper for the secretary to extend any such non-members an invitation to make application to the Society for membership.

The board of censors reported favorably on the name of Dr. C. U. Senn, of Odell, and he was elected to membership in this Society. The application for membership of Dr. A. P. Schnetzky of Elkhart Lake was received.

Dr. John Tasche read a very interesting paper on *Intestinal Parasites.*

On invitation Dr. Detling addressed the members concerning medical organization in the northern part of the state.

The following officers were elected for the ensuing year: President, Dr. J. C. Elfers; vice-president, Dr. J. Tasche; secretary and treasurer, Dr. W. F.

Zierath; delegate, Dr. A. E. Genter; alternate, Dr. J. R. Kingsley; censor, Dr. O. B. Bock.

W. F. ZIERATH, M. D., *Secretary.*

Last week the crusade of the physicians in the city of Sheboygan against contract practice took an interesting turn. As noted in the minutes of the Society recorded above, the agreement not to do contract work was signed by 25 of the 27 physicians in the city. One of the two who did not sign had freely expressed himself as being opposed to fraternal contract work. The other physician was an open and avowed candidate for the position of contract physician for the Lodge of Eagles. For several days it was rumored about town that one of the signers of the agreement was recently working, through his friend, to obtain the position. The facts, however, could not be verified, and as the professional standing of the individual had previously been good, little attention was paid to the rumor. Last Friday, December 6th, the Eagle Lodge held their annual election of officers. It was pretty well understood that the lodge was acquainted with the action of the physicians in the city regarding contract practice, and also, that the physician who had served them during the past two years was one of the signers of the agreement, and that he would adhere to its several clauses. That left only one available candidate. But on Friday night the physician whose name was associated with the rumor permitted his name to be placed in nomination and was voted on. He and the physician who had not signed the agreement were the candidates. The doctor who had betrayed the trust his fellow physicians had placed in him and who violated his pledge not to do contract practice was deservedly defeated.

It is needless to state that the matter has stirred up considerable feeling and that it will be thoroughly aired in the next meeting of the county medical society.

The agreement still stands and will continue to do so. It has not suffered, but on the contrary is stronger than ever.

The action of the recreant signer to the agreement is considered as a manifestation of the slight regard he has for his word of honor.

To the unprejudiced observer it looks as though he had not signed the agreement in good faith, but had signed it with the hope that he would thereby encourage others to adhere to the spirit and text of the agreement and that he would in the meanwhile secretly work to obtain contracts, and when it suited his convenience would repudiate his pledge. By doing this he evidently hoped to reduce the number of candidates for contract positions, and thus himself be in a more favorable position to obtain the appointment.

Each one of the signers was furnished with a copy of the agreement and was notified that it had been adopted by the signers and had gone into effect. If any signer felt that he could not adhere to the agreement because it was not signed by every physician practicing in the city, it was certainly incumbent on him to so notify the president and secretary of the county society. That that was not done in this case is almost convincing proof that the agreement was not signed in good faith by the physician who violated his pledge.

The whole affair is a mournful commentary on the low plane to which medical ethics have fallen in the estimation of certain individuals, and is confirmatory proof of the remarks of Dr. H. B. Sears in the November number

of this JOURNAL, in which he says, "It is humiliating to be obliged to admit that the ordinary doctor is selfish and self-seeking, and does not have much professional pride, or feel any particular obligation to his chosen profession. However, this view is sometimes forced upon us."

This incident merely emphasizes the necessity of weeding the "ordinary doctor" out of the medical world. Earnest effort must be made to reform him. If he can not be reformed he must be placed in such a position that his reprehensible actions will not reflect on the integrity of the whole profession. Every physician should be thoroughly impressed with the nobility of his profession, with its glorious past and its aspirations for the future. In every way he should strive to perpetuate its ideals and refrain from any action or misdeed that will impair his own usefulness or the trust that others impose in him. And this can only be attained by organized effort to fight the evils existing in the medical profession to-day, and as Dr. Sears says, "Rallying around a standard embodying all that is noble, just and true."

W. F. ZIEBATH, M. D., *Secretary.*

ST. CROIX COUNTY MEDICAL SOCIETY.

The St. Croix County Medical Society met at Hudson, September 17th, with Dr. C. F. King presiding.

Dr. Boothby by request read a paper on *Emergencies of the Lying-in State*, which elicited considerable discussion, and some difference of opinion.

The secretary was instructed to invite Dr. Archibald MacLaren, the surgeon-general of the Omaha R. R., to be present at the next meeting, October 15th, and favor the Society with a paper.

E. L. BOOTHBY, M. D., *Secretary.*

The regular monthly meeting of St. Croix County Medical Society was held at Hudson, October 17th, with the president, Dr. W. H. Banks, in the chair. Drs. Kermott and Washburn of the Dane County Medical Society, and Drs. Burfiendt and Thomas of Minnesota, and Dr. Archibald MacLaren of St. Paul were present as the guests of the Society.

The secretary read the outline for post-graduate study for county medical societies as planned by Dr. Blackburn of the A. M. A., and indorsed by that Association. The Society then listened to a paper by Dr. Boothby on the *Obstetric Forceps*, describing their use and abuse. He mentioned the conditions under which version should be resorted to in place of the forceps and said that often forceps were used too late as well as too early. They should never be used to save time for the doctor. In the high operations version was usually the more successful, if done early, and too much time was wasted with the forceps when all indications pointed to version as the proper method to be attempted. The greatest care should be taken not to rupture the perineum as no perineum, however skillfully repaired, is as good as one never ruptured. The paper was discussed by Drs. MacLaren, King, Bradford and Williams.

Dr. MacLaren of St. Paul, the invited guest of the Society, read a paper on *Pelvic Abscess* in both men and women, relating the history of several hundred cases. His conclusions were backed up by facts gathered from his experience and contained the results of both successful and unsuccessful cases. He advocated the vaginal method in many cases as the best and safest, and

the operation for appendicitis at any and all times without waiting for the subsidence of acute symptoms, not only within the first 12 or 24 hours, but at any period after, as giving the best results except in females, where the large abscess could be first drained through the vagina. The paper presented many new features and elicited considerable discussion and many questions were asked and answered at length.

The secretary stated that there would be no meeting in November, as the District Society would meet at Eau Claire November, 21, and all members were urged to attend. This meeting is to be an innovation, the public being invited to attend and the entire meeting is to be devoted to the consideration of questions of *Preventive Medicine*. The following men from outside the district are expected to be present and assist by reading papers and discussing questions of public health: Dr. Bardeen of the University, Dr. Harper, secretary of the State Board of Health, Dr. Ohage of St. Paul, Minn., who has made a record as health commissioner of that city, Dr. Wilmarth, superintendent of the Home for Feeble Minded at Chippewa Falls, and others. It is expected that the state exhibit of tuberculosis at Madison will be secured for this occasion also. There will be a banquet in the evening at the Galloway House.

The next meeting of the Society will be held at Hudson in December, and this being the annual meeting, the election of officers for the year will take place. Members are asked to bear in mind that the annual dues for 1908 are due and payable at that time.

At the close of the meeting the members and guests were invited to the Sanatorium by Dr. Bradford, the superintendent, where a splendid collation was served and an hour of social converse was enjoyed by those present.

E. L. BOOTHBY, M. D., *Secretary.*

WAUKESHA COUNTY MEDICAL SOCIETY.

A meeting of the Waukesha County Medical Society was held at Waukesha, December 5th. The election of officers resulted as follows: President, Dr. Hugo Philler, Waukesha; vice-president, Dr. W. R. Jones, Sussex; secretary and treasurer, Dr. M. M. Park, Waukesha; censor, Dr. W. S. Wing. Oconomowoc; delegate, Dr. M. R. Williamson, Oconomowoc; alternate, Dr. W. B. Campbell, Menomonee Falls.

As so few were present the reading of the paper of the afternoon was postponed until the next meeting.

M. M. PARK, M. D., *Secretary.*

FIRST DISTRICT MEDICAL SOCIETY.

A meeting of the First District Medical Society was held at the State Tuberculosis Sanatorium on October 28th, with 30 members present. Dr. C. A. Paull, superintendent of the Sanatorium, gave a talk on tuberculosis, explained the methods of the institution, and showed the members around.

THOMAS MILLER, M. D., *Secretary.*

SECOND DISTRICT MEDICAL SOCIETY.

The fourth annual meeting of the Second District Medical Society was held at Racine October 17, 1907. The meeting was called to order at 11:30 A. M. by the president, Dr. W. A. Fulton of Burlington.

The District Councilor, Dr. Windesheim, was called upon and made a few remarks relative to the object of District Meetings.

Dr. H. J. Stalker of Kenosha County was elected president, and Dr. M. V. Dewire of Walworth County secretary and treasurer.

After a dinner at the Hotel Racine the meeting reconvened and proceeded with the scientific program. Dr. J. P. Reynolds, Lake Geneva, read a very interesting paper on *Management and Control of the Physical and Mental Development of the Child.* Discussion by Drs. Adams and Cleary, Kenosha, Dr. Sorenson, Racine, and Dr. Harper, Madison.

The concluding number on the program was furnished by Dr. C. A. Harper, secretary of the State Board of Health, in a paper entitled, *General Consideration of Sanitation and Hygiene from a Board of Health Standpoint.* Dr. Harper's paper was so interesting and instructive that a motion was made and unanimously sustained by the Society, requesting the State Board to have a reprint of the paper for distribution.

After adjournment the visiting members, through the courtesy of the physicians of Racine, were taken for an automobile trip about the city and to Horlick's Malted Milk factory.

J. RUSSELL EASTMAN, M. D., *Secretary.*

SEVENTH COUNCILOR DISTRICT.

The third annual meeting of the Seventh Councilor District Medical Society was held at La Crosse, November 7th. In the absence of the president, Dr. A. A. Maurer, Dr. Edward Evans called the meeting to order shortly after 2 o'clock. There were thirty-five members present.

The following interesting program was presented:

The president's annual address was read by the Secretary.

Role of Peritoneum and Lymphatics in Abdominal Infection, by Dr. A. I. Bouffleur of Chicago. Dr. Bouffleur was given a rising vote of thanks for his excellent paper.

Medical Defense for members of the State Medical Society, by Dr. Edward Evans, of La Crosse. A vote was taken heartily endorsing this movement.

The following officers were elected for the ensuing year: President, Dr. H. A. Jegi, Galesville; vice-president, Dr. E. N. Townsend, New Lisbon; secretary, Dr E. N. Reed, La Crosse.

At the request of the Society, Dr. Jegi briefly told of the epidemic of acute anterior poliomyelitis in Trempealeau County.

The evening meeting to which the public was invited was held in the Travelers' Hall; there were over 200 people present. The chairman introduced the speakers. Dr. E. N. Reed read a paper on *Quackery.*

Dr. John Beffel of Milwaukee gave an eloquent address on *The White Plague.* After he had finished, a number of the audience asked questions, which he answered. The chair called for a vote of thanks to Dr. Beffel, which was unanimous.

The members of the Seventh District Society then adjourned to the New La Crosse Club, at the invitation of Dr. J. A. L. Bradfield, where they were served to roast venison of the doctor's own shooting, with all the appropriate "fixings." This was a pleasant informal meeting, which lasted until 11 o'clock.

H. A. JEGI, M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

The third quarterly meeting of the Fox River Valley Medical Society was held at Oshkosh, October 15th, and was called to order by the president, Dr. W. R. Hicks, of Menominee, Mich. Dr. F. Gregory Connell of Oshkosh, Rush Medical College, 1896, was elected to membership.

Dr. W. A. Gordon, Jr., of Oshkosh, read a paper on *The Surgery of the Ureters.* The discussion of this paper was very thorough and interesting. The next paper on *The Urinary Findings in a Few Cases of Bright's Disease,* by Dr. W. H. Bartran of Green Bay, was able and well written and the discussion was opened by Dr. W. Eicher of Bonduel.

On account of the unavoidable absence of Dr. C. M. Echols of Milwaukee, his paper on *Some Problems in Surgical Drainage* was read by Dr. C. J. Combs of Oshkosh. This paper brought out a heavy discussion of the different methods of drainage by all the surgeons present.

Returning to the order of business, a committee, consisting of Drs. A. W. Slaughter, A. O. Olmsted, and W. H. Bartran of Green Bay, was appointed to draft resolutions relative to the death of Dr. H. M. Beck of Green Bay, and to present the same at the next meeting.

Dr. T. J. Redelings of Marinette then introduced the following resolution:

"*Resolved,* that the Fox River Valley Medical Society be merged into a councilor district society covering the 5th, 6th and 8th districts, and that a copy of this resolution be sent to all members of the Society as a notice of an intended change in the constitution, and that this be acted on at the next regular meeting at Green Bay, January 21, 1908."

On motion the secretary was instructed to send out copies of the resolution to all members.

A committee was appointed consisting of Dr. T. J. Redelings, Marinette, Dr. C. J. Combs, Oshkosh, and Dr. Mears of Fond du Lac, to investigate this subject and report at the next meeting.

H. P. RHODE, M. D., *Secretary.*

THE WISCONSIN
MEDICAL JOURNAL
JANUARY, 1908.

ORIGINAL ARTICLES.

MECHANISM OF PNEUMOCOCCAL INFECTIONS.*

BY HERMAN E. WOLF, M. D.
LA CROSSE, WIS.

Although pneumonia is an infection with an accepted etiology, clear cut clinical features and a definite pathologic anatomy, the finer mechanisms by which the pneumococcus overcomes the natural resistance of the body, produces its characteristic lesions and is in turn overcome in cases terminating favorably, still baffle all investigation. Until these processes are more definitely understood, the therapy of this disease must necessarily remain empirical and symptomatic. Unfortunately, typical pneumonia cannot be produced in available laboratory animals, due no doubt to our inability to approximate natural conditions of which we must take cognizance.

The constancy of the clinical course and the pathological findings force us to assume that the pneumococcic process is dependent upon a definite relationship between the natural resistances of the human body and the degree of virulence of the invading organism, a relationship established by evolution and selection through many centuries.

Viewed from this standpoint, there is a natural acquired tendency towards an equilibrium between the pneumococcus and the human body, but in pneumococcic infections this equilibrium is disturbed by conditional variations in the parasite, in the host, or in both.

The study of pneumococcal infections therefore readily resolves itself into two definite channels, namely, a careful study of the organisms, isolated from the blood of pneumonia patients; and second,

*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, Aug. 22, 1907.

the mechanism by means of which the body protects itself against and combats such infections.

It is obvious that in order to arrive at any definite conclusions, we must not allow these two channels to diverge too freely, but closely associate the strain or race of pneumococci with extent of local or general involvement, the protective influences of the body and the termination.

Eliminating in this way many sources of error, it is hoped that a careful analysis of a series of cases may give some comprehensive idea of the mechanism of such infection.

PNEUMOCOCCI ISOLATED FROM THE BLOOD OF PNEUMONIA PATIENTS.

I have collected the records of one hundred fifty-six cases of pneumonia from the medical wards of the Cook County Hospital, in which I made one or more blood cultures.

The pneumococcus was isolated one or more times in one hundred forty-five cases or in ninety-three per cent of all examined. These results agree in the main with those of Rosenow (*Journ. of Infectious Dis.*, 1904, 1, 280-312.) In the remaining eleven cases of undoubted lobar pneumonia the blood cultures remained negative on repeated examinations, although one of them (case 111) developed a pleuritic exudate from which a typical pneumococcus was isolated.

MORPHOLOGY. The organisms obtained in all cases were typical lance shaped pneumococci, grouped in pairs and forming the typical green zone about the colonies on blood agar. One hundred of the strains were tested with inulin and found to ferment it. (The pneumococcus in case 5 is rather exceptional. Besides the above characteristics, its growth on blood agar is slimy and microscopically consists of short chains of heavily encapsulated organisms. Its virulence is very high for rabbits. Evidently this organism is to be classed as the Pneumococcus Mucosus).

TIME OF ISOLATION OF ORGANISM. The earliest positive culture was obtained twenty-four hours after the initial chill (case 99) while the latest was obtained twenty-eight days after the initial chill, or seventeen days after what appeared to be a typical crisis (case 61). Although spread over this wide range of time, considerable variation is noted in the time and frequency of obtaining positive cultures in cases terminating favorably. Fatal cases, as a rule, yield positive cultures at all times. I have collected forty cases terminating in recovery (Table 1) in which practically daily cultures were made before and somewhat less frequently after crisis. This table contains

TABLE I. TIME AND FREQUENCY OF ISOLATION OF ORGANISMS.

Case No.	EXTENT OF LOCAL INVOLVEMENT	Day of Crisis	LEUCOCYTOSIS	BLOOD CULTURES (Day of Disease) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
40	Complete (Migratory)	.....	20800				—	—	—	—	—	—	—	—		—														
41	Complete (Migratory)	.....	14400								—	—	—	—		—		—		—										
44	Complete Right Lung.....	5th	28400	—	—		—	—																						
63	Complete Right Lung.....	6th	19900			—	—	—	—	—	—	—		—																
111	Complete Left Lung.....	8th	40000		—	—	—	—	—		—		—	—	—		—													
74	Right Lower Lobe.....	8th	18600			—		—	—		—		—	—																
75	Left Lower Lobe.....	8th	15000			—	—	—	—		—			—																
82	Left Lower Lobe.....	8th	13400			—	—	—		—	—	—	—	—																
91	Right Lower Lobe.....	9th	22000						—	—	—	—	—	—																
95	Right Lower Lobe.....	10th	20000			—				—	—	—		—																
99	Right Lower Lobe.....	8th	11600			—		—	—	—	—		—	—																
54	Right and Left Lower Lobe.....	3rd	14000		×	—	—																							
65	Left Lower Lobe.....	4th	30000			×	—	—	—	—	—	—																		
67	Right Lower Lobe.....	4th	22000			×	—	—	—	—	—																			
68	Right Lower Lobe.....	7th	18400			×	—	—	—	—	—																			
70	Right Lower Lobe.....	8th	37800			—	×	—	—	—	—																			
72	Left Lower Lobe.....	7th	14000		—	×	—	—	—	—	—																			
73	Right Upper Lobe.....	6th	18000					—	×	—	—	—																		
78	Right Upper Lobe.....	6th	22600			×	—	—		—																				
83	Left Upper Lobe.....	10th	17500			—	×	—		—	—	—	—																	
81	Left Upper Lobe.....	8th	22000			—	—	×	—	—	—	—	—																	
85	Left Upper Lobe.....	10th	13000			×	—	—	—	—	—	—	—	—																
43	Complete Right Lung.....	7th	34500		—	×	—	×	—		—		—																	
50	Right Upper Middle.....	7th	11200				×	×	—		—		—																	
56	Complete Left Lung.....	7th	15000			—	×		×	—	—	—	—																	
58	Right Upper and Middle Lobe...	7th	21000					×	—	×	—	—	—																	
64	Complete Left Lung.....	6th	19200			—	×	×	—	—	—																			
66	Left Lower Lobe.....	8th	25000			×	×	—	—	—	—																			
89	Right Lower Lobe.....	7th	17800						×	×	—	—	—																	
92	Right Lower Lobe.....	8th	19500			×	—	×						—																
96	Right Lower Lobe.....	?	27200						×	×		—	—		—	—														
99	Right Lower Lobe.....	3rd	9000-20000	—	×	—	×	—	—	—																				
42	Complete Right Lung.....	16th	22000		×	—	×	—	—	×		—		—		—														
47	Complete Left Lung.....	18th	27000					×	—	—	—	—	—	—	×	—	—							×			×				
55	Right Upper Lobe.....	12th	15000						×	—	×	—	—	×	—		—														
61	Complete Left Lung.....	14th	23200					×	×	—		—		—	×	×	×	—	—											×	
79	Left Lower Lobe.....	12th	12100							×	—	—		—	×	—		×													
80	Left Lower Lobe.....	14th	16000						×	—	—	—	×	—		×															
93	Right Upper Lobe.....	13th	17000							×	×	—	×	—		—															
88	Left Upper Lobe.....	10th	17500				×																				×	—	—	×	

the eleven cases already mentioned where the cultures remained persistently negative. Eleven other cases yielded only one positive culture, ten cases, two and the eight remaining cases, three or more.

Not only does Table 1 show this variation in the number of positive cultures, but also as to the time when they were obtained. To be sure, early cultures are more likely to be positive, but it nevertheless happens that early cultures may be negative and positive on the day of crisis or even later (*Jour. of Infectious Dis.*, 1906, III, 446-451.)

Concomitant leucocyte counts were usually made but no marked change noted to which we could attribute the difference of behavior in cultures. Nor can we determine or predict the above from the extent of local pulmonary involvement. I have arranged the forty cases of Table 1 according to extent of involvement and as to number of positive cultures obtained in table II. From this it is readily seen that the eleven cases with negative cultures were quite as extensive as the others, two (40 and 41) being migratory pneumonias involving all five lobes successively, two involving complete right side, one the entire left side with empyema and endocarditis. It is quite evident therefore, from this table, that extent of local involvement does not influence the result of blood culture or presence of organism in the blood, or *vice versa*.

VIRULENCE OF ORGANISM ISOLATED. To determine the relative virulence of pneumococci, thirty of the strains isolated from the blood were carefully tested for rabbits with results as shown in Table III.

First and foremost we note that, without exception, the virulence of the organism from fatal cases is greater than that of organisms from cases terminating favorably. Of the most virulent 1 c.c. of a twenty-four hour blood bouillon culture sufficed to kill a full grown rabbit in twelve hours, while the least virulent from a fatal case required 2.8 c.c. of a similar culture to kill a rabbit in thirty-six hours, and the least virulent organism in non fatal cases required 7 c.c. to kill a rabbit in seventy-two hours—a considerable difference in virulence.

TABLE II.

Extent of Involvement	No. of Cases Yielding 0, 1, 2, 3, or more positive Cultures respectively. 0	1	2	3 or more
5 Lobes....	2 (Migratory)	0	0	0
3 Lobes....	2	0	1	1
2 Lobes....	1	1	4	3
1 Lobe	6	10	5	4
Total.....	11	11	10	8

Again it is noticeable that where cultures were obtained at different stages of the disease, the virulence for rabbits remains practically the same. (*Jour. Infectious Dis.*, 1906, III, 446-451).

TABLE III. COMPARATIVE VIRULENCE OF ORGANISMS (Isolated).

Case No.	EXTENT OF LOCAL INVOLVEMENT.	Day of Crisis	Day of Death	LEUCOCYTOSIS	Blood Cultures—Day of Disease.																			Virulence for Rabbit	
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Fatal Dose.	Time of Death.
5	Both Lower and Right Upper	.....	7th	7200-6400-3000				×	×	×															.5cc.	14 hours
6	Entire Right Lung	.....	6th	8600							×														2. cc.	36 hours
29	Entire Right Lung	.....	14th									×	×												1. cc.	18 hours
12	Entire Left Lung	.....	13th					×		×			×												1.5cc.	24 hours
16	Entire Left Lung	.....	12th					—	×						×										1. cc.	12 hours
17	Right Lower and Middle Lobe	.....	4th				×																		1.	24 hours
19	Right Lower Lobe	.....	9th	9000-6400-3800						×		×													.5	14 hours
20	Right Lower Lobe	.....	18th	36600										×											2.	18 hours
23	Left Lower Lobe	.....	7th								×														2.00	36 hours
26	Left Lower Lobe	.....	13th	5300-6800						×															1.5	24 hours
27	Right Lower Lobe	.....	3rd	25600		×																			2.00	30 hours
28	.....	.....	4th			×															×				1.00	20 hours
21	Left Lower Lobe	.....	?	2300									×												.5	16 hours
36	Broncho Pneumonia	.....	?	53800																					1.5cc.	32 hours
42	Complete Right Lung	16th	.....	22000		×	×	—	—	×	—	—													3. cc.	28 hours
47	Complete Left Lung	18th	.....	19200				×	×	—	—	—	—			×									5. cc.	40 hours
56	Complete Left Lung	7th	.....	15000				×	—	×	—	—	—	—	—	—					×				3. cc.	48 hours
58	Right Middle and Lower Lobe	7th	.....						×	—	×	—	—	—											2.8cc.	36 hours
59	Complete Left Lung	7th	.....	4000-5600			×	—	×																3.5cc.	36 hours
61	Complete Left Lung	14th	.....	16200							×		—		—			×	×	×	—	—	—		4. cc.	36 hours
100	Complete Left Lung	9th	.....							×	—	×													2. cc.	24 hours
65	Left Lower Lobe	4th	.....	30000			×	—	—	—	—														6. cc.	48 hours
71	Right Lower Lobe	5th	.....	27100			×																		2.5	28 hours
73	Right Upper Lobe	6th	.....						×	—	—		—												4. cc.	30 hours
78	Right Upper Lobe	6th	.....	22600			×	—	—		—		—												5. cc.	42 hours
25	Left Lower Lobe	6th	.....	17200				—	×	—	—	—	—												4. cc.	19 hours
84	Left Lower Lobe	8th	.....	17600					×	—	—	—	—												3. cc.	18 hours
88	Left Upper Lobe	?	.....	17600			×	—	—	—	—		×		×										4.	24 hours
93	Right Upper Lobe	13th	.....								×	×	—	×	—		—								7.	72 hours
99	Right Lower Lobe	3rd	.....	9000-20000	—	×	—	×	—	—	—														5. cc.	48 hours

In other words, the virulence of an organism does not change appreciably during the course of the disease nor even after the crisis, the results of Tizzoni and Panichi notwithstanding. (*R. Accad. d. Sc. di Bologna,* 1905, Jan. 15; Revicoreti Accad. dei Lincei, XIV, 2 serie, 16 juillet, 1905, pp. 107-14.)

The question naturally arises, does virulence of the involving organism influence the extent of local involvement? In Table IV, I have arranged the thirty cases as to extent of involvement and as to termination, the latter showing from results obtained in Table III the virulence of the organisms.

It is readily noted that the local process, in cases terminating favorably, is quite as extensive as in the fatal cases. Moreover, we know that cases with localization other than pulmonary, as meningeal and peritoneal, are exceedingly fatal though the local focus is decidedly small.

TABLE IV.

Extent of Involvement.	Termination. Died.	Lived.
3 Lobes	3	1
2 Lobes	3	6
1 Lobe	7	9
Broncho Pneumonia	1	0
Total	14	16

PHAGOCYTOSIS. Many years ago, Metchnikoff pointed out the close relationship between phagocytosis and virulence of pathogenic organisms, and other observers have shown that even virulent organisms become sensitized to phagocytosis in the presence of immune serum. In all forty strains (including the thirty tested for virulence) were tested when freshly isolated, and I was unable to note any evidence of phagocytosis by human leucocytes in the presence of normal sera or homologous and heterologous pneumonic sera before and after crisis. However, that there is a great difference between different strains is shown by the avidity with which different strains lose their resistance to phagocytosis. Thus, strain sixteen on daily blood agar transfers retained practically intact its virulence and resistance to phagocytosis for five and one-half months, while strain ninety-three lost both under similar conditions in three weeks. Between these two extremes there are many intermediate stages.

INFLUENCE OF EXTENT OF LOCAL INVOLVEMENT UPON PROGNOSIS.

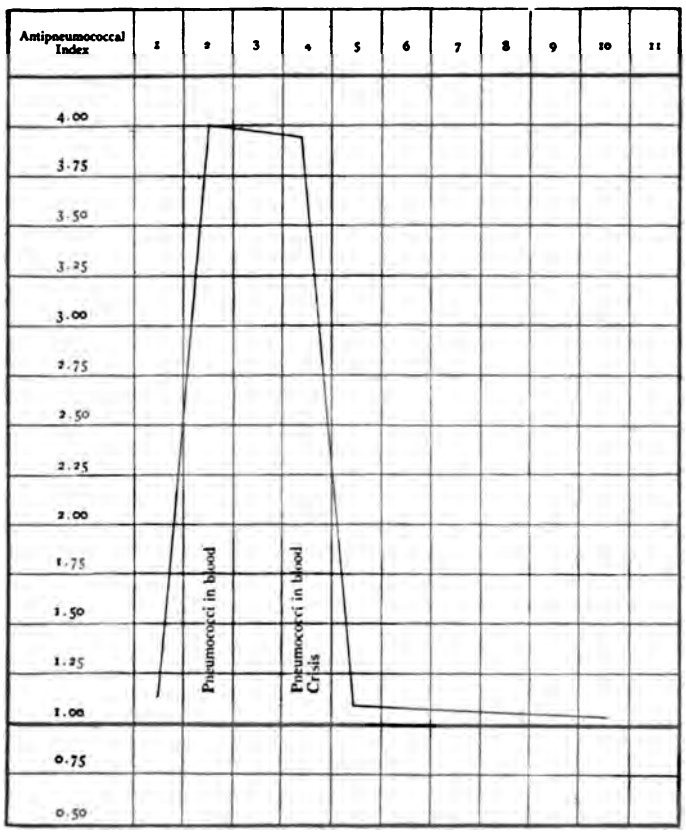
In Table V I have arranged the one hundred fifty-six cases with reference to the extent of local involvement and also their termination. The mortality of the series is 35.2 per cent, showing a comparative

severity of the cases. The number of cases in which more than three lobes were involved is comparatively small, and in one only was it so extensive as to savor of mechanical interference (case I showed post mortem four lobes gray hepatization and the remainder red hepatization.)

In cases involving three lobes, the class mortality is 54.5 per cent, but only 21.8 per cent of entire mortality. With two lobes involved, the class mortality was 26.8 or 20 per cent of entire mortality, and with only one lobe involved we find 28.9 per cent class mortality, but 43.6 of whole mortality. However, the mortality in cases with other than pulmonary localization is 100 per cent, but only 9 per cent of total mortality. We, therefore, see from the table that the extent of involvement has but little influence upon prognosis and the cause of death must be looked for at another quarter.

CHART 2.

ANTIPNEUMOCOCCAL POWER OF THE BLOOD IN A TYPICAL CASE OF PNEUMONIA.



INFLUENCE OF LEUCOCYTOSIS ON PROGNOSIS.

I have already called attention to the fact that leucocytosis seemed to have but little influence upon the presence or absence of pneumococci in the blood. Excessive leucocytosis does not mean unconditional recovery, for we occasionally see cases (case 36— leucocytosis 53,800) with very high leucocytosis that succumb, nor does a hypoleucocytosis mean a sure death (cases 57-59). In Table VI, I have collected nine cases of pronounced hypoleucocytosis with extent of local involvement, and in six cases the virulence. It is noted that the first seven cases died while the last two (57 and 59) recovered. No marked feature is discovered in the extent of local involvement, and, as many of the other strains (Table III) were more virulent for rabbits and were associated with a comparative high leucocytosis in the patients, we must rather ascribe the hypoleucocytosis to diminished vitality of the patient and his inability to react rather than to the virulence of the organism in the case.

TABLE V.

Extent of Involvement.	Lived.	Died.	Total p. c. of Class of Cases	Per cent. of Mortality.
Complete	2 (Migratory) (40-41)	1	.....	.9
4 Lobes	0	1	....	....
3 Lobes	10	12	54.5	21.8
2 Lobes	30	11	26.8	20
1 Lobe	59	24	28.9	43.6
Broncho Pneumonia..	0	1 (36)	....	....
Meningitis	0	2 (38-39)	....	....
Peritonitis	0	1 (37)	100	3.2
Pleurisy	0	1 (125)	....	....
Endocarditis	0	1 (126)	....	....
Total.....	101	55	....	....

OBSERVATIONS ON THE OPSONIC INDEX AND THE ANTIPNEUMOCOCCAL POWER OF THE BLOOD IN PNEUMONIA.*

It has been shown by Wright and Douglas and others that phagocytosis of various bacteria is dependent upon the presence in the blood and other fluids of certain substances called opsonins; moreover, that these substances exert their influence upon the bacteria and not directly upon the leucocytes. It has been demonstrated also that opsonins are increased during the course of acute infections, especially as recovery takes place, and that they may be artificially increased by the injection of killed bacteria. Thus Wright and Douglas[1] have shown that there may be a deficiency of the proper opsonins in chronic staphylococcus infections and in tuberculosis, and that the opsonins are increased by injection of corresponding bacterial vaccines. Mennes[2] previously described an increase in the substance that pro-

motes phagocytosis of pneumococci in the serum of animals immunized to pneumococci. He took the view then prevalent that the substance in question acted wholly by stimulating the leucocytes to phagocytic action. Hektoen[3] obtained increase in the streptococcic opsonic index in man by the injection of dead streptococci, while Neufeld and Rimpau[4] found that sera of animals immunized to streptococci and pneumococci prepare virulent strains of these bacteria for phagocytosis, while normal sera do not.

TABLE VI.

Case No.	EXTENT OF LOCAL INVOLVEMENT	LEUCOCYTOSIS.	DEATH OR CRISIS.	VIRULENCE	
				Fatal Dose	Time of Death.
2	Both Lower and Right Upper....	9200	9th day		
5	Entire Right	7000-5400-3800	7th day	.5cc.	14 hrs.
6	Right Lower	8600	6th day	2. cc.	36 hrs.
19	Left Lower Lobe.....	4000-6400-3800	9th day	.5cc.	14 hrs.
21	Left Lower Lobe.....	2500	?	.5cc.	16 hrs.
26	Left Lower Lobe.....	5300-36800	13th day	1.5cc.	24 hrs.
35	Left Lower Lobe.....	4600	9th day	?	?
57	Complete Left	7600-12000	Crisis 7th day	?	?
59	Complete Left	4000-5600	Crisis 7th day	3.5cc.	36 hrs.

It was thought, therefore, that it would be of interest to determine the opsonic power of the blood during the course of pneumonia in its various phases. Corresponding dilutions of normal and pneumonic serum were added to fixed quantities of washed blood (leucocytes) and pneumococcal suspension with the view of eliciting minute variations in the resulting phagocytosis. The quantities of 0.2, 0.1, 0.05, 0.025, 0.0125 c.c. of serum were tried, the quantity in each instance being made up to 0.2 c.c. and each tube contained in addition 0.2 c.c. of washed normal blood (leucocytes) and 0.2 c.c. of pneumococcus N suspended in normal salt solution. Pneumococcus N was isolated from the blood of a pneumonia patient three months before and is quite readily taken up by the leucocytes under these circumstances. The mixtures were incubated at 37° C., and at the end of 20 minutes smears were made and stained, the number of organisms counted in at least 20 leucocytes in each case, and an average obtained. It was found that 0.025 c.c. gave the most satisfactory results, and the pneumococco-opsonic indexes in the charts are based on results so obtained.

Eleven cases were studied by this method, usually with daily determinations before crisis in typical cases, and less frequently thereafter. This series includes two cases of pneumococcal empyema and two cases of migratory pneumonia, two fatal cases of pneumonia, while the remaining five were cases of typical lobar pneumonia terminating in crisis. Besides the determination of the opsonic index,

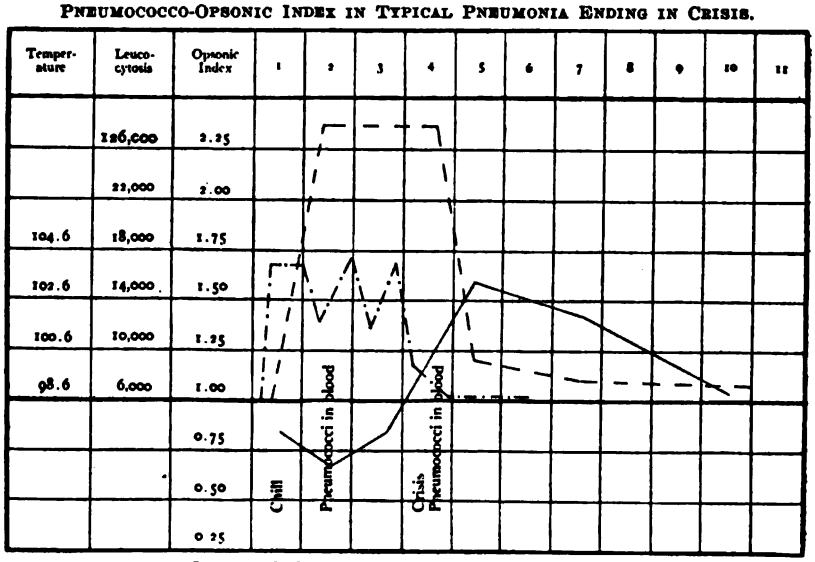
leucocyte counts and blood cultures were made, the results of which are indicated also in the charts.

All the typical cases of pneumonia were found to have certain characteristics in common, and Chart I illustrates the type of variation in the pneumococco-opsonic index in typical pneumonia with definite crisis. It is noteworthy that the opsonic index persists below normal until within a few hours before the crisis (the negative phase of Wright), then it rises above normal and reaches its height within 24 hours after crisis when decline toward normal takes place. The leucocyte curve, on the other hand, rises rapidly after the chill and begins to decline as the opsonic index rises remaining above normal for a few days after crisis.

While the opsonic index may be regarded as an index of the protective powers of the blood we must not leave out of sight the rôle of the polymorphonuclear leucocytes which are equally necessary for phagocytosis. As the leucocytes are enormously increased in pneu-

CHART 1.

PNEUMOCOCCO-OPSONIC INDEX IN TYPICAL PNEUMONIA ENDING IN CRISIS.



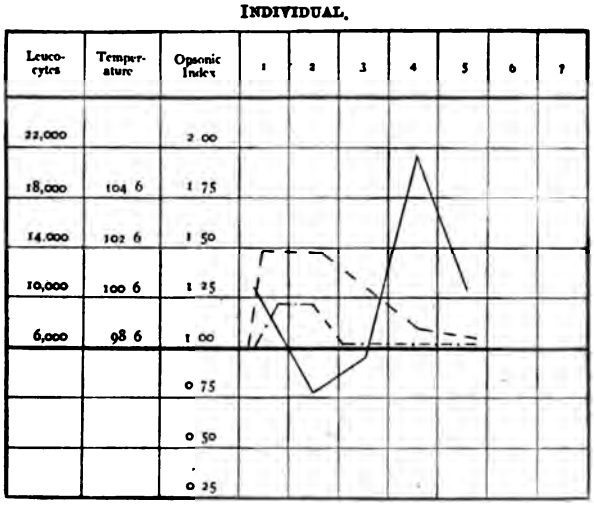
monia the antipneumococcal power of the blood may be much greater than is apparent from the study of the opsonic curve only. If each leucocyte in normal serum takes up 4 pneumococci and there are 4,200 such polynuclear leucocytes per c.mm. of normal blood, we may consider that 4,200 X4=16,800 organisms might be taken up in each

c.mm. of blood. If 3 pneumococci are taken up by each pneumonic leucocyte in pneumonic serum during the negative phase and there are 18,700 leucocytes per c.mm., the total number of organisms taken up will be 3X18,700=56,100, which would represent the entire antipneumococcic power of 1 c.mm. of pneumonic blood. It is therefore readily seen that although the pneumococco-opsonic index of pneumonic blood may be below normal early in pneumonia, the antipneumococcal power of the same may be 3½ times the normal, assuming of course that the opsonin present is sufficient to opsonize the quota of pneumococci necessary. It is noteworthy that Rosenow's[1] observations upon the rôle of polymorphonuclear leucocytes in the pneumococcidal action of human blood *in vitro* go to support the view here taken.

This possible relative antipneumococcal value of the blood of a typical case of pneumonia (Chart 1) I have plotted on Chart 2, from which we see that although the pneumococco-opsonic index (Chart 1) is below normal during the first two days, the actual anti-pneumo-

CHART 2.

INFLUENCE OF DEAD VIRULENT PNEUMOCOCCI UPON THE OPSONIC INDEX IN A NORMAL INDIVIDUAL.

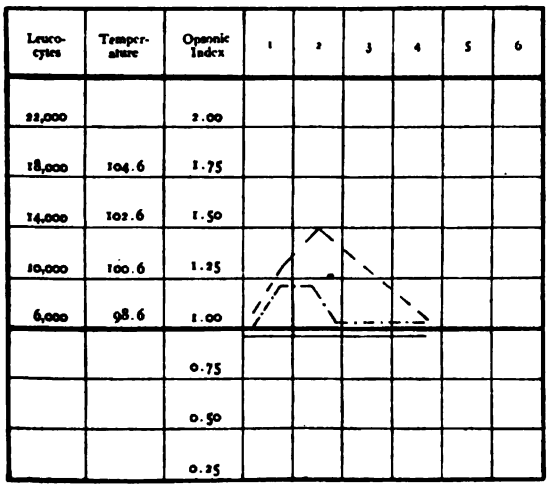


———— Opsonin.
— — — — — Leucocytes.
—.—.—.— Temperature.

coccal power would be far above normal. This relation appears to continue until the opsonins are at their height, i. e., shortly after crisis, when the leucocytes have so decreased that the antipneumococcal power of the blood would be decidedly lowered though still above normal. The highest point reached thus appears to be shortly before crisis is complete.

CHART 4.

INFLUENCE OF DEAD AVIRULENT PNEUMOCOCCI UPON THE OPSONIC INDEX OF A NORMAL INDIVIDUAL.



———— Opsonin.
— — — — — Leucocytes.
—.—.—.— Temperature.

Production of immune opsonins by injection of pneumococcal vaccines.—It has already been mentioned that the opsonins in the blood may be increased by the injection of bacterial substances or vaccines (Wright). The following experiment may be given as a further illustration: A healthy man was injected under the skin of the arm with the 24-hour growth of 10 blood-agar slants of virulent pneumococcus S heated to 60° C. for one hour. This was followed in four hours by a leucocytosis of 13,800 persisting for 48 hours together with slight rise in temperature as shown in Chart 3. There were also some malaise and headache, while locally there was considerable pain, reddening, and infiltration which disappeared without softening in 48 hours. The general symptoms also subsided within 36 hours.

The train of events as seen from Chart 3 correspond well with the changes that occur in cases of pneumonia—at first there is a rapid decrease in opsonins, followed by rapid rise with a decline to normal. It is to be noted that the leucocytes here also begin to drop as the opsonins rise.

As it had been noted that dead avirulent pneumococci produce as marked a temperature and leucocyte reaction as do dead virulent cultures, another experiment was made in which dead avirulent pneumococci were substituted for the virulent ones. The result is

shown in Chart 4. The temperature and leucocyte reactions are comparable to those in the experiment with virulent pneumococci but no appreciable difference was exerted upon the pneumococco-opsonic index. Now we know that virulent pneumococci, dead or alive, *in vitro* are not susceptible to phagocytosis in normal or pneumonic blood. It is therefore possible that the property of virulence is concerned in stimulating the production of immune opsonins observed in Chart 3 but lacking in Chart 4.

Effect of pneumococcal vaccines in pneumonia.—It has been found that opsonins can be increased by injections of the proper bacterial vaccines and that this increase is in many cases associated with a favorable influence upon the infection. Whether this salutary effect can be explained wholly by the increase in opsonins, as some are inclined to think, is perhaps questionable, yet the opsonic index certainly may be taken as a sort of measure of the resistance as shown from the foregoing observations.

In all, 14 cases of lobar pneumonia were treated by the injections of pneumococcal vaccines, of which 11 recovered and 3 ended fatally, as indicated in Table 7. In all cases with a favorable termination there was a very slight rise of temperature from four to six hours after the injection together with an increased leucocytosis. Crisis also occurred from 18 to 36 hours after the injection in all but one case, where a second injection was given and crisis took place 18 hours after the last injection. The opsonins, below normal at the first determination, rose characteristically just before crisis, though no exaggeration of the negative phase occurred immediately after the injections. In other words, the evolution of the course was precisely that of a case untreated, with the exception that crisis seemed to occur early. In the 11 cases that recovered, five cases had the crisis on the third day, three on the fourth, one on the fifth, and two on the sixth. These cases were chosen at random from cases with a mortality of about 40 per cent for that month; hence the number of recoveries among the injected would seem to be high, and certainly crisis occurred unusually early.

Of the three cases ending fatally two were senile pneumonias, while the other showed a marked hypoleucocytosis. In these cases after injection no marked temperature or leucocyte reaction occurred, nor was it followed by any increase or decrease in opsonins. This condition of affairs might be construed to mean that the sources of vital resistances of the body had been so thoroughly exhausted as to permit of no further stimulation.

TABLE VII. EFFECT OF INJECTIONS OF PNEUMOCOCCAL VACCINES IN PNEUMONIA.

Patient	Day of Disease	LEUCOCYTES		TEMPERATURE		CRISIS OR DEATH			INVOLVEMENT
		Before Injection	Four hrs. after injection	At Injection	Four hrs. after Injection	Result	Day of Disease.	After Injection	
F. G.	3rd	19,200	30,000	103.4	103.8	Crisis	4th	34 hours	L. l. lobe
A. B.	3rd	17,200	24,000	102.2	102.6	Crisis	4th	26 hours	R. l. lobe
A. E. B.	2nd	.....	.....	101.2	101.8	Crisis	3rd	40 hours	R. l. and r. m. lobes
J. C.	2nd	.....	.....	101.4	101.8	Crisis	3rd	24 hours	Rt. side complete
M. D.	3rd	27,100	28,000	102.2	102.2	Crisis	4th	22 hours	R. l. lobe
Sch.	4th	37,000	38,000	103.0	103.4	Crisis	5th	24 hours	L. l. lobe
P. K.	6th	25,500	26,500	102.8	103.0	Crisis	6th	18 hours	R. l. and r. m. lobes
A. S.	3rd	12,000	18,000	102.0	102.4	Crisis	3rd	16 hours	L. l. lobe
T. M.	2d, 3d	22,600	29,000	103.0	103.4	Crisis	6th	30 hours	Complete rt. side
A. B.	2nd	19,200	26,000	102.6	103.2	Crisis	3rd	36 hours	L. l. lobe
A. H.	2nd	14,000	20,000	103.0	103.4	Crisis	3rd	26 hours	L. l. lobe
L. W.	2nd	17,000	14,000	102.2	102.0	Death	6th	96 hours	Rt. upper and mid. and l. l. lobes
A. H.	4th	14,000	12,250	101.2	101.0	Death	5th	18 hours	Complete l. lung
C. H.	3rd	4,000	3,100	103.8	103.6	Death	5th	42 hours	Rt. upper and middle lobes

Are opsonins for the pneumococcus present in anti-pneumococcal *sera?*

Samples of antipneumococcal sera from several firms were tested. Equal quantities of leucocytes, anti-pneumococcal serum and pneumococci were incubated for fifteen minutes to one hour, but in no case was any phagocytosis noted.

It is very evident that to inject these sera with the view of increasing the opsonins is worse than useless.

SUMMARY.

I. The essential process in pneumonia is the bacteremia.

II. Blood cultures in fatal cases are always positive, while in cases ending in recovery they vary somewhat as to time and frequency, but this variation is independent of the extent of local involvement, stage of the pneumonic process, or leucocytosis.

III. Organisms from fatal cases are invariably more virulent than those from non fatal cases. Virulence has no influence upon the extent of pulmonary localization, nor upon leucocytosis. The virulence of organisms does not change during the course of the disease, although, on artificial cultivation there is a marked difference in the avidity with which they lose their virulence.

IV. Extent of pulmonary involvement has no marked influence upon prognosis, although it may be said that cases with definite pulmonic localization are much more favorable than the purely pneumococcemia or localization other than pulmonary.

V. Leucocytosis is a favorable symptom, yet its function as to numbers is perhaps overestimated, for leucocytes in absence of sufficient opsonins are useless and may mean death, while with low leucocyte count and high opsonins we may get recovery.

VI. The readiness with which phagocytosis takes place depends upon the degree of virulence of the organisms tested, which, however, does not vary at the various stages of the pneumonic infection, and hence corresponds with virulence.

VII. The opsonins in pneumonia are first decreased and in fatal cases remain below normal, while in cases recovering they rise above normal just before crisis. The typical pneumococco-opsonic curve can be produced by injection of dead virulent pneumococci. When dead avirulent pneumococci are substituted, the toxic effect is produced but no alteration in the opsonic curve.

The injection of dead virulent organisms seems to exert a favorable influence upon the course of lobar pneumonia, but more data are necessary to draw definite conclusions.

The anti-pneumococcic sera upon the market are deficient in opsonins and hence little or no benefit can be expected from their use.

CONCLUSION.

Through selection and evolution the human body and the pneumococcus have assumed a peculiar relationship to each other. In order to maintain their stable parasitism, the pneumococci have developed a certain virulence which gains them access to the human body; the human body, on the other hand, has developed certain powers of defence against their invasion.

From the foregoing it is safe to conclude that the pneumococcemia is the essential pathological process in pneumonia, while the pulmonary localization is in reality a salutory process, an attempt to localize an infection. In support of this we may argue that:

1. In pure pneumococcemia or where the localization is other than pulmonary, as meningeal or peritoneal, we have a mortality of practically one hundred per cent.

2. The pneumococcus can frequently be obtained from the blood before physical signs of pulmonary involvement appear.

3. The extent of pulmonary involvement, as shown in tables, is rather an expression of resistance than otherwise.

4. In animal experiments, as pointed out by Wadsworth and observed repeatedly by myself, it is only possible to produce typical pneumonic lesions in partly immune rabbits (normal rabbits are very susceptible to pneumococcal infections and have insufficient resistance to develop local pulmonic lesions in response to virulent pneumococci.)

Virulence means nothing more nor less than the acquired power of the pneumococci through which they resist phagocytosis (that is, overcome the principal defence of the body against bacterial invasion), and gain access to the body, and serves merely to maintain their position in the body.

The toxic properties differ from virulence. They are present in pneumococci that have lost all virulence for rabbits, as I have shown in human and animal experiment where clinically equal quantities of dead avirulent and dead virulent organisms produce the same result. The toxine has never been isolated and is known as an endotoxin. It is perhaps only a stage in the splitting process of the dead disintegrating organs. As to its action nothing is known.

The other factor to be considered is the human body. We have already classed the pulmonary involvement as a local though ineffi-

cient expression of resistance. Phagocytosis is undoubtedly the essential safeguard and depends upon the leucocytes and opsonins. Leucocytosis in itself is inefficient, for without preliminary preparation the pneumococci are not taken up by them. Moreover, this phenomenon of leucocytosis is stimulated by the toxines of avirulent as well as virulent organisms.

Opsonins are present in normal blood in sufficient quantity to destroy, with the aid of leucocytes, all organisms of low or moderate virulence. However, exposure, alcoholism and chronic diseases, depress the opsonic content of the blood for pneumococci as well as many other bacteria, and infection takes place.

We have then the following possibilities: We may have organisms of extreme virulence entering the body against which the resistance (phagocytic powers) are powerless, or we may have organisms of lower virulence and a low opsonic content of the blood with a resulting infection. If the opsonins of the blood are increased through stimulation by these organisms, crisis occurs with a corresponding disappearance of organisms from the blood, or if the human body can not furnish more opsonins, death ensues.

The question arises, can we add opsonins by adding antipneumococcal serum? It has been shown—(Neufeld and Rimpau, also Mennes) that immune sera favor phagocytosis of virulent pneumococci and will even protect animals against a fatal dose. I have tested several of the antipneumococcal sera on the market and found them deficient in opsonins, thus accounting for their inefficiency in clinical experience.

Likewise it has been shown that certain salts in isotonic solution and various antiseptics have an anti-opsonic action, and hence to flood the body with these, means robbing it of its mainstay of defence.

From the above we may safely conclude that our aim in treating pneumonia must be to increase the opsonins in the blood of the patient. Whether this can be done by the introduction of antipneumococcal sera or by pneumococcal vaccines, remains to be seen. In the meanwhile let us not destroy what opsonins there are in the blood by empirically drugging the patient.

PNEUMONIA*.

BY L. A. POTTER, M. D.
SUPERIOR, WIS.

Pneumonia being one of our most fatal as well as most frequent diseases, it is but right that this society should have it as a topic for discussion each year—until a better treatment is secured, or until some specific is obtained, and methods of prevention are better understood. I shall not attempt to cover the whole field in this paper, but shall confine myself principally to etiology, prevention and treatment. The symptomatology, diagnosis and pathology have been very thoroughly gone over in the past and may be obtained from any recent text-book.

ETIOLOGY. Pneumonia is almost always due to a specific pneumococcus infection, but it may in secondary pneumonias be complicated by other bacteria, such as the influenza or tubercle bacillus, or streptococcus. The pneumococcus is present in the mouths of healthy individuals in the ratio of from 25 to 35 per cent., varying according to whether the individual is in a densely and crowded community or has been recently in close contact with pneumonia patients. It is also frequently found in people having pathologic conditions of the pharynx, nose and ear, and may be expelled by such people when speaking, coughing or expectorating. It has been shown that the lungs even in their deepest portions are not sterile, but contain at all times a mixture of bacteria some of which are pathogenic species, so that the condition of the lungs is similar to the upper air tract; as a rule these bacteria are quite harmless, due to the bactericidal power of the body fluids or to a high opsonic index of the blood serum, as has been shown by Wright and others. For the development of the disease there is needed another factor than the presence of bacteria. It may consist of some injury to the tissues by which their resisting powers are lowered, or by some change in the circulation by which the tissues and their fluids become a better medium for the development of bacterial growth; also, the pathogenic bacteria vary much in virulence. As has been shown a virulent germ in the circulation of very susceptible animals incites rapidly fatal general infection without local lesions, but when injected through the trachea of only moderately susceptible animals, broncopneumonic types of lung lesions are incited; or in other words, the malignancy of the disease depends on the virulency of the penumococci and the susceptibility of the animal. It has been found that the viru-

lency of the pneumococci are very much increased when passed through a susceptible animal. The mouse is a very susceptible animal to the pneumococci and is sometimes probably a cause of starting a very virulent form of the disease.

Climate and season seem to exert a very marked influence over the prevalence of pneumonia. It is more frequent in the middle and northern part of the temperate zone, and more than two-thirds of both cases and deaths take place during the colder and more variable months of December, January, February, March and April. Observation and records furnished by several military posts between the Atlantic coast and the eastern slope of the Rocky Mountains, show that pneumonia prevails most and is most fatal in the middle belts of the country where the range of temperature between the hottest days of summer and the coldest days of winter are greatest. That sudden chilling is a contributing cause of pneumonia is shown by experiments that have proven that animals suddenly chilled and injected with cultures of pneumococci have developed pneumonia, while control animals that received the injection without chilling remained well. The large amount of alcoholic drinks and narcotic drugs consumed has undoubtedly been a predisposing cause of pneumonia. If their use is continued from day to day, even in moderate doses, they favor the retention in the system of toxic agents that so impair the tissues as to cause their degeneration. Most important works on the practice of medicine mention the habitual use of alcoholic liquors as one of the most important predisposing causes of the disease, and as greatly increasing the ratio of mortality. The late Dr. N. S. Davis attributed to alcoholics and narcotics a very important factor in the causation of pneumonia. In one of the last papers he wrote, he says: "that protoplasmic impairment and diminished vital resistance are not limited to the individual drinkers, but are perpetuated in their posterity to the third and fourth generations. Therefore, it is often one of the chief determining causes of death in persons who had never drank alcoholic liquors, but had been born of parents who were habitual users of that agent. It is by such impairment of vital resistance in both parents and their children by the use of alcoholic liquors and other narcotic drugs that pneumonia and other affections of the lungs, kidneys, liver, heart, and brain are made to increase faster than the increase of population". It is probable that the amount of patent and proprietary drugs, which contain largely alcohol and narcotics, that have been consumed in the past, has played an important role in the causation of pneumonia.

PROPHYLAXIS. As the pneumococcus is the main cause of pneumonia and is thrown off mainly through the sputum and exhalations

of the respiratory tract, it is necessary that these excretions should be destroyed in all cases. It is also essential that rooms, clothing and everything else that comes in contact with a pneumonia patient be disinfected in the same manner as after any other contagious disease, especially is this so during the pneumonia season or an epidemic of pneumonia. Persons who have diseases of the nose, throat or lungs should avoid coming in contact with pneumonia, as they are more liable to carry a virulent form of the pneumococci and although they may not take the disease themselves, they will endanger others. It is also essential that they have their chronic throat and lung troubles cured, if possible, so as not to be carriers of infection.

Anything that serves to prevent cardio-vascular and kidney diseases will prevent pneumonia in the aged, as these are found to be associated or antecedent conditions in the majority of cases. Indoor occupations in the cold season favor the propagation of the pneumococci, and diminish the resistance to the infection. Special attention should be paid to the subject of ventilation and appropriate clothing, and to the avoidance of agencies that cause degeneration of the heart, blood-vessels and kidneys, such as alcohol, social excesses and over-work in business or professional life. Health departments should be given full executive power to carry out rules and regulations relative to the prevention of the spread of pneumonia, as in other infectious and contagious diseases. The public should also be educated to the fact that pneumonia is, in a sense, a contagious disease, and can, to a certain extent, be prevented.

TREATMENT. There is no specific for the treatment of pneumonia. Although many drugs and methods have been brought out in the past, none have proven their value in the sense of a specific. Possibly something may be evolved from Wright's opsonic theory in the form of a specific, but what has been done is too recent to permit drawing practical conclusions.

The advice given in an editorial in the *Journal of the American Medical Association* is as near the truth at the present time as any other statement of which we are aware, regarding the treatment of pneumonia. It says: "What is needed in the treatment of pneumonia is not more drugs, but the discriminating and intelligent use of those we have. We need to steer clear of therapeutic nihilism on the one hand, and of overdoing and polypharmacy on the other. To declare because there is no specific for the disease, that drugs and medical treatment are valueless, is as absurd as it is to pour useless drugs into the patient as soon as the diagnosis is made. Why can we not have for pneumonia as for typhoid a few broad general principles of treatment?

Why not admit that at present there is no specific, and so stop the indiscriminate and harmful practice of over-drugging? Let there be individualization in the treatment of this disease."

No drug should be given unless the physician sees clear indications for its use and then he should use the best obtainable, and give until the desired effect is accomplished. We know how the bacteria are destroyed in the blood by means of leucocytosis. Any agent that raises the number of leucocytes would be beneficial. Such agents we have in nuclein, creosote, and probably the bacterial vaccines.

Late reports show nothing definitely gained in the serum treatment of pneumonia. It does not cut short the disease as diphtheritic antitoxin does, and the result is uncertain and not the same in every case.

In the first stage of engorgement in a strong plethoric patient with a full pulse and high fever, it is my method to clear out the alimentary canal thoroughly by small and repeated doses of calomel and soda bi-carbonate followed by a saline. At the same time, I give aconitine gr. 1/134 every fifteen or twenty minutes, until I get a softer and slower pulse, or until the skin is moist or sweating, or tingling of the lips occurs and fever subsides. This I do not continue over twelve or twenty-four hours, depending somewhat upon the condition of the patient. The elimination from the intestinal canal relieves the system of a good many toxins and at the same time lessens the amount of congestion in the affected lung. The aconitine regulates the vasomotor changes and eliminates toxins from the system. If the fever is very high, and there is much pain, I prefer the ice bag locally. At times it gives great relief from pain and lowers temperature, relieves the necessity of giving opiates which lock up the secretions and prevent the elimination of poisons.

Observation shows that the primary effect of the pneumococcus infection is that of stimulation, as shown on the nervous system by great restlessness and insomnia; on the respiratory system by rapid and deep breathing; and on the circulatory system by the rapid high pulse, and high blood pressure. This condition, if continued for any great length of time, brings on exhaustion, and if the patient is handicapped by age, if his resisting power is poor, if he is the victim of alcohol indulgence or organic disease, the chances are against him. As soon as our patient begins to show any signs of exhaustion, we must change our methods of treatment to one of cardiac tonics and stimulation. Those that have stood the test of time and have given the best satisfaction are strychnin, alcohol and digitalis. They may be given singly or combined, depending on the condition of the case.

When used they should be given to obtain the desired effect; their physiological action should be closely watched.

There is considerable controversy among authorities regarding the use of alcohol, some condemning it, and others praising its use. There was a time when it was given indiscriminately, in large doses, and without any regard to the condition of the patient; undoubtedly much harm was done. It should be used when we have a small incompressible, rapid, feeble and irregular pulse, with absence of the first sound of the heart and diminished apex beat. In this condition I have often seen the most happy results from the use of alcohol. Of prime importance in the treatment of pneumonia is diet. We should be constantly on our guard against flatulence or hypertension for it will interfere with an overtaxed heart and embarrass respiration. The food should be light and nutritious. Milk peptonized, beef broths and gruels should be our main foods. Do not overfeed. The toxins from decomposing foods may do as much damage as the pneumococcic infection.

I have seen marked benefit from enemas of normal saline solution. I frequently use them two or three times daily. A considerable portion is absorbed from the bowel and is followed by free diuresis. It seems to wash out or counteract the toxine in the system. It has another action in keeping up the alkalinity of the blood, which is lowered in pneumonia due to the acid products of the pneumococci. There would be an objection to the use of the salines if there is a doubt as to the condition of the kidneys. There would be edema of the lungs, if the chlorides were not readily eliminated.

The open air treatment of pneumonia has received many advocates the last year or two. The results obtained are very favorable, and it in no way interferes with other methods of treatment. It consists in placing the patient well wrapped, with hot applications to the feet, in the open air for about six hours each day. The colder the weather, the better they seem to do. Patients that seemed beyond all hope before being placed in the open air have revived and recovered. Dr. W. P. Northrup, in a paper read at the session of the American Medical Association at Boston, strongly advises the open air treatment and concludes:

1. The cases most favorably affected by open air treatment are those with severe poisoning, with delirium, partial cyanosis or deep stupor (dopey). In my experience, all cases fare better in cool fresh air. Open air may be secured by screening off the bed and a portion of the room next the window.

2. In my experience, no cases of pneumonia have been injured, and a few have been much aided, possibly saved, by the cold fresh air treatment.

3. If pneumonia, due to an infecting agent, is benefited by the treatment, one may be easily led to try it in other infectious diseases. As a matter of fact, I have tried it for many others, including typhoid, with severe bronchitis and convulsions, with excellent results. It seems to me the ideal treatment for all forms of "septic fever."

4. The only regulation is to make the patient comfortable, keeping their feet warm especially. The ears, nose and hands may get cold without harm.

The open air treatment teaches the importance of giving our patients plenty of fresh air, and if it is cold, it is all the better. Probably this will prove true in all infectious diseases accompanied with high fever.

I have not considered all the different drugs and methods used in the treatment of pneumonia, but I have brought out what seems to me the most practical, and can be varied to suit the various conditions found. Each case will have to be considered by itself, and treated accordingly. We should treat the conditions found; not the disease, but the patient.

DISCUSSION.

DR. EDWARD QUICK of Appleton:—I think the essayist is to be congratulated upon this splendid paper. I know something of the amount of work it has involved to work out and list this series of cases. His publications have come to our notice from time to time; we have all been interested in his work and know of its excellent character.

I am glad that he brought out clearly the fact that pneumonia is a bacteriemia; that our efforts should not be directed wholly to the process in the lungs; that we should recognize pneumonia as a general disease; and that the prognosis does not depend so much upon the amount of lung involvement as upon the virulence of a particular pneumococcus infection. This latter fact ought in time to be an important item in the prognosis in cases of pneumonia.

The question of opsonins is very interesting at the present time. There is probably more appearing in current literature on this subject than on any other relating to bacteriology. I first heard of the subject of opsonins several years ago while I was at work in the wards of Cook County Hospital in Chicago. Prof. Hektoen came to my ward and requested the privilege of getting blood from pneumonia patients and stated that he was interested in the work recently published by Prof. Wright, relating to opsonins and phagocytosis. He informed me that opsonin was a bacteriotropic substance which was of importance in the presence of phagocytosis. Since that time I have had a growing interest in the subject of opsonins. The bacteriotropic substances, *viz.* bacteriolysins, bacteriocidins and agglutinins, which have been studied much in times past, are practically qualitative tests for conditions of the blood. In opsonins we have found a substance in the blood which can be subjected to quantitative tests. They can be reduced to numbers which form a new vantage

ground for purposes of comparison and study. The work of various men in the field of research is far from being unanimous and the results perhaps are not of very great value as yet; but it seems to me that the trend is for something of great practical good.

I had hoped that Dr. Wolf would take up the treatment of pneumonia more extensively than he did, but this will probably be brought out in connection with the discussion of the first paper. There is no specific in the treatment of pneumonia. It was demonstrated by Rosenow several years ago that the pneumococcus in its growth in media produces an acid reaction, and he also demonstrated that the blood in pneumonia patients has a higher percentage of acid than in health. Reasoning from this fact the alkaline treatment of pneumonia has been used rather extensively, and it seems to me to be based on a rational notion. I trust it will be more fully exploited in the future.

Rationality is a term that cannot be applied to any other treatment of pneumonia that has come to my knowledge, and recent work on the subject of anti-opsonins leads me to think that many methods of treatment involving the administration of large quantities of powerful drugs, may be not only irrational but positively harmful. From my own experience in the treatment of pneumonia I am quite discouraged.

If the investigations of Dr. Wolf and others working along the lines of vaccine therapy lead to practical results and the ravages of pneumonia can be in a measure stayed, we shall all be very glad.

DR. L. F. JERMAIN of Milwaukee:—I think it is a well established fact at the present time that pneumonia is an acute infectious process, and that the changes in the lungs, as found in pneumonia, are but local manifestations of general infection, in the same manner as we have local lesions in typhoid fever in the intestinal tract. I think the fact is well established and should be our guide in the treatment of this affection. A great deal of damage is done by treating pneumonia as a local disease, by paying too much attention to the lesions as they appear in the lungs. I believe that if we would treat pneumonia more along the lines in which we treat other acute infectious diseases, and leave out of consideration entirely the local conditions as found in the lungs, we would be more successful.

It is really surprising, in the face of the great prevalence of pneumonia and in the face of its frightful mortality, that so little attention should be paid by health authorities to this affection. I believe that pneumonia ought to come under the regulation of local health authority, just as well as smallpox, scarlet fever or diphtheria. The disease is certainly more prevalent and the death rate is much greater than in any of these affections. That it is a contagious disease is demonstrated clinically almost daily in our practice; and why all attempts at disinfection and the destruction of the pneumococcus should be neglected when we are so careful in fumigating and cleansing after scarlet fever, diphtheria or smallpox, is beyond my comprehension.

Our hope, I believe, in the future treatment of pneumonia lies along the opsonic or similar theory.

Our treatment to-day is mainly dietetic and hygienic, and the closer we stick to this line of treatment the better will we succeed.

I think all will agree that the use of drugs, except for symptomatic pur-

poses, in pneumonia, is to be deplored; that is, to the extent that they have been used in the past. If we make the patient as comfortable as possible, give him plenty of fresh air, nourishing food, and keep his temperature within bounds, and treat him as we would treat a case of typhoid fever, we will be much more successful.

Dr. Wolf is to be congratulated upon the excellent work he has done in this direction. Too much encouragement cannot be given men working along these lines, as it is just such investigation that will eventually result in the diminished prevalence of pneumonia and will furnish us with a specific in its treatment.

DR. E. J. BROWN of Decatur, Illinois:—I will accept your invitation to speak, although I am not a member of this Society; I am from the Illinois Society; but I cannot let this most excellent paper go by without some discussion, as the paper shows an immense amount of original research, and belongs to a class of papers which we should have in our state societies.

The work of Wright on opsonins has interested me very much indeed, and has taught me two or three very valuable lessons in regard to some old methods of treatment and old theories for the relief of disease. Thus, we now can explain why the withdrawal of a small amount of pleuritic effusion is of assistance; it increases the opsonic power or index of the blood, and enables the blood to prepare the bacteria for food. Opsono means "I prepare food for." It also explains the influence of poultices. We find now that our grandfathers in medicine were often right in the use of poultices, for we know that the poultice produces passive hyporemia in the region of infection, or increases the afflux of blood to the parts, and in that way helps to destroy the bacteria which produce the infection.

This theory also explains the success of the new treatment by passive hyperemia for joint disease, which I have used with most excellent results. We know that by producing a passive hyperemia of a joint, such as the knee or elbow, by putting a band above the seat of the disease, we can increase the opsonic index of the blood, and often cause relief. It also explains the fact of the occasional successful treatment by charlatans in osteopathy. We know that occasionally an osteopath will give great relief in joint disease by means of manipulations, if he does not carry it to too great an extent; and we believe that the relief there is due to the increased afflux of blood to the joint and the local increase of the opsonic index. For that reason I think that we should welcome this treatment and we hope that it will reach a simplicity in technique which will allow the general practitioner to use it. At present it is absolutely impossible for the general practitioner to do this opsonic work.

DR. L. A. POTTER of Superior: (closing)—I do not know as there is anything further to add to what I have already said. Of course the paper was not complete, but was intended merely to bring out the fact that the cause of pneumonia was bacterial infection, and that we should treat it as a general infection, not local; this I think, has been brought out in the discussion.

DR. H. E. WOLF of La Crosse (closing):—The inefficiency of the drug treatment of pneuomnia is important, and right in line with that the work that has been done on opsonins in pneumonia and in general, shows that numerous antiseptics and various salts, even ordinary sodium chloride in

more concentrated solutions than contained in the isotonic solution of the blood, will inhibit the opsonic growth; and we can see that if we flood the body with these substances we not only do not benefit the patient, but as a matter of fact we can very readily perhaps destroy the only safeguard that the body has in combating the infection.

DR. MARGARET RYAN of Duluth:—Is it true that the chlorides are actually diminished in the blood in pneumonia? We have been taught that such is the case.

DR. WOLF:— I think the excretion of chlorides in the urine is diminished. An accumulation takes place due to the inability of the kidneys to excrete the chlorides sufficiently. That is true at least in a large number of cases, although in some the diminution of the chlorides in the urine is not so marked.

PREVALENT OCULAR DISEASES.*

BY NELSON M. BLACK, M. D.
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The old saying "a little knowledge is a dangerous thing" is undoubtedly true; however, the quotation does not apply to the general practitioner of medicine, better known as the "family doctor." It is a self evident truth that he cannot know it all, and a little knowledge of the diseases of the organs of special sense, if used by our country colleague in the many emergencies with which he constantly comes in contact, will save his patients untold suffering, and in many instances save vision or the organ of sight itself.

Injuries to the eye will not be referred to as they were so thoroughly brought to the attention of the society last year by Dr. Seaman.

The lids are the first part of the ocular apparatus with which we come in contact. The most familiar pathological condition met with is blepharitis; the lids have red margins, upon which there are scabs, and fine scales are at the roots of the lashes. The patient complains of burning and smarting lids, especially after close use of the eyes, of their being stuck together in the morning, and of frequent styes. In those who use the eyes a great deal for close work this is usually the result of eye strain due to some error of refraction; in others it is due to bacterial infection of the hair follicles, later causing ulcerated areas along the lid margins. The infection of the hair follicles usually comes from rubbing the lids; it may be due to extension from a conjunctival discharge or the conjunctivae may be infected from the lid

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margins. The treatment should consist in removing the fine scabs and scales with a cotton tipped tooth-pick dipped in some bland oil, the lid margins bathed with a saturated solution of boric acid, best applied in an eye cup, dried and an ointment of yellow oxid of mercury, ½%, applied to the lid margins; no harm is done if a little gets into the eye. Existing errors of refraction should be corrected and properly fitting glasses prescribed.

Another common lid affection is the hordeolum or stye. It is most frequently due to eye strain caused by errors of refraction. Hot compresses will usually abort a stye if applied early enough; if pointing has occurred incise and evacuate the pus, the after-treatment being the same as in blepharitis.

The chalazion or tarsal cyst, usually gives the individual no discomfort until large enough to be noticed by others. Mild inflammatory symptoms may be present in the later stages. The growth feels like a shot beneath the skin of the lid, which moves freely over it. Treatment consists in incision into the cyst at a point where it shows as a spot of lighter yellow or gray on everting the lid, and thoroughly removing the cyst contents and wall with a small curette. Mopping out with a cotton tipped tooth pick dipped in adrenalin solution (1-1000) will usually prevent the formation of a small hematoma in the cyst cavity; a light pressure bandage should be worn for 24 hours.

Lashes turning in are a source of great annoyance and frequently cause sufficient irritation to result in ulceration of the cornea. The offending hairs should be searched for with a magnifying glass as they are frequently so small and white as to escape notice, and removed with cilia forceps. Where entropion or ectropion exists operative measures should be resorted to.

Inflammation of the tear conducting apparatus is one of the most unsatisfactory conditions with which the ophthalmic surgeon has to deal: first, because of the chronic condition it has usually reached when first seen by him; second, because of the patience and perseverance required in the treatment both by the doctor and patient before results can be obtained; third, the frequency with which the condition recurs. The large majority of cases of dacryocystitis are the result of nasal catarrh, due to the occlusion of the outlet of the nasal duct where it empties into the nose beneath the inferior turbinate bones. This allows the tears to accumulate in the nasal duct and lacrymal sac; the tears having no outlet, flood the eye, blurring vision, and overflow upon the cheek. These are the first symptoms complained of. The retained contents of the lacrymal sac and nasal duct form a perfect culture medium for bacterial propagation, causing blenorrhea of the

sac, which may later result in the formation of an abscess. This shows itself in the form of a violent inflammation in the region of the sac, "the skin in the vicinity is reddened and greatly swollen; the swelling also extends to the lids, and even to the conjunctiva in which there is chemosis." There is violent pain and fever. The abscess points and a lacrymal fistula results. As long as this remains open the individual is safe from new attacks; if allowed to close a recurrence may ensue. When the disease reaches such a stage, removal of the sac is usually necessary. The primary object of the treatment is to prevent the occurrence of lacrimal blenorrhea. When the patient complains of the eyes tearing, it should be ascertained if the ducts are obstructed. If closed, gentle dilation with a cone-shaped probe should be resorted to, after the instillation into the inner canthus of a few drops of 5 per cent cocain solution and adrenalin solution 1-1000. If there is a fluctuating swelling at the inner canthus indicating that the lacrymal sac is distended, gentle pressure will frequently cause the contents to flow into the nose or regurgitate through the lacrymal ducts; the conjunctival sac should then be thoroughly flushed with boric solution, a few drops of 1-1000 adrenalin solution applied and gently massaged into the sac to shrink the lining, this to be followed in five minutes by a collyrium composed of:

Cocain muriat. 0.030
Antipyrin 0.10
Acidi Borici 0.40
Aqua Camph.
Aqua Dist., aa q. s. 15.00.

Or, a 15 per cent argyrol solution which should also be massaged into the sac. Care should be exercised in the use of argyrol or any other silver salts, if there is an abrasion of the lining of the lacrymal sac, because permanent argyrosis may result.

Attention to the nose should consist in attempting to relieve the catarrhal congestion by the use of alkaline nasal douches and some bland oil spray used with a nebulizer. Tablets made up according to Seiler's formula, or glyco-thymoline, have given splendid results as a douche, used two or three times daily, and Parke, Davis Co.'s Chloretone Inhalant is excellent as an oil spray. The patient can carry out such treatment at home with an occasional visit to the doctor. All syringing, probing and attempt at dilatation of the nasal duct, should be left to an ophthalmic surgeon.

Many patients find delight in using the term "granulated lids" when they have any lid trouble, and are not infrequently told by

their "family physician" that they have "granulated lids" when only a mild conjunctivitis exists. Fortunately, true "granulated lids" or trachoma is rather rare in and about Milwaukee, or at least is not seen much by the majority of eye men. Such cases may be known by the exuberant tufts of granulations on the under surfaces of the lids, usually with many fine blood vessels overlapping the corneal margin (pannus). The vision is of course more or less diminished. The patients should be made to know the gravity of the condition to themselves, and the danger of infecting others who come in close contact with them, or with the towels or basins they use in washing. They SHOULD BE under the care of an ophthalmic surgeon. The treatment is usually operative: scarification of the granulations, and expressing their contents by means of roller forceps. The after treatment consists in keeping the surfaces clean with boric washes, the use of dionin in a 5 per cent solution once daily to promote absorption, and massage of the lids against the globe after applying a 10 per cent salve of copper citrate to the cul de sac. This form of treatment must be carried out faithfully and for a long time to obtain results, and even then recurrences are not infrequent.

Purulent conjunctivitis is always due to infection. The character of the discharge should always be determined by the use of the microscope. A solution of Loeffler's alkaline methylene blue is most serviceable for staining the smears.

Gonorrheal conjunctivitis or ophthalmia neonatorum is the most serious and demands immediate and constant treatment. Dr. Burns of New Orleans reports the best results from the use of a *fresh* solution of 15 per cent argyrol instilled into the eye, *each 15 to 20 minutes day and night.* If the lids are much swollen, constant ice compresses are essential; these compresses should be of gauze 3 inches square made up of 12 to 14 layers, moistened in 1-10000 bichloride solution and kept cold by being laid upon a piece of ice; these should be kept on the eye constantly and changed at least every minute. Involvement of the cornea is a very frequent complication and usually results in loss of the eye, at least as far as vision is concerned. Treatment should be changed to hot compressing ½ hour each three hours, to sustain corneal nutrition, and with the argyrol used as above. In this condition manipulation of the lids must be avoided, as the cornea is in a softened, macerated state and easily abraded; the lids should be gently drawn apart and the argyrol dropped in and allowed to smear over the lids from the edge of which it may later be gently wiped off. These cases are better off by far under the care of an ophthalmic surgeon.

Other frequent forms of purulent conjunctivitis are due to the pneumococcus, staphylococcus, and Koch-Week's bacillus, "pink eye" resulting when the latter is the exciting cause. The treatment should consist of frequent flushing with boric acid solution in an eye cup, and the instillation of argyrol, 25 per cent, every three to four hours.

Conjunctivitis of a non-purulent type may primarily be due to errors of refraction, or when no such error exists, to the bacillus subtilis, the pneumococcus, or the diplo-bacillus of Morax-Axenfeld. Here boric acid flushing with an eye cup and argyrol are indicated, and in the diplo-bacillus conjunctivitis a collyrium of zinc sulphate, one or two grains to the fluid ounce, should be used in conjunction with the boric acid flushing.

Scleritis shows itself as a slightly elevated dusky red area in the scleral coat, made up of numerous engorged blood vessels. The conjunctiva over these areas is not involved and may be freely moved without affecting the enlarged vessels underneath. Scleritis has been thought to be due to a rheumatic diathesis, but of late has been regarded as a tubercular condition on account of the reactions obtained by tuberculin injections and the improvement under this form of treatment.

Corneal ulcers are usually due to infection following minute abrasions of the corneal epithelium, the bacteria normally found in the conjunctival sac thus finding a less resisting medium and becoming actively pathogenic. The ulcers may be seen as grayish roughened areas on the cornea with a great deal of circum-corneal injection. Ulcers and abrasions of the cornea are easily made visible by the instillation of a solution of fluorescine, 2 per cent, in sodium bicarbonate, 10 per cent; this stains the abrasion a brilliant green and outlines the ulcer perfectly, which is of great advantage when it is necessary to cauterize the ulcerating area or to apply some stimulant to it, as tincture of iodine or phenol.

The treatment should consist in hot compressing for ½ hour each three hours, with large, thick compresses to retain the heat, frequent douching with saturated boric solution and the instillation of 25 per cent argyrol, each two or three hours. Atropine, in 1 per cent solution, should be used 3 or 4 times daily to pull the iris away from the cornea and place it at rest. Dionin in a 5 per cent solution used morning and evening will primarily aid in the nutrition of the cornea by its lymphagogic action, and secondarily relieves pain. The eye should be protected from the light by the use of dark glasses.

These cases are best treated in a hospital where one is certain to have directions carried out.

Phlyctenular conjunctivitis and keratitis frequently coexist and appear as small yellowish elevations upon the bulbar conjunctiva or the limbus of the cornea; running to this elevation is a triangular leash of vessels. Photophobia is marked. The condition is found most frequently in children having a more or less inflammatory state of the nasal mucous membranes, such as is found in the strumous diathesis. The treatment consists in dusting calomel powder into the eyes and the use of a one per cent atropine solution three times daily, or, better still, the use of a salve of yellow oxide of mercury, ½ per cent and atropine alkaloid 1 per cent, two or three times daily. The eyes should be protected from the light by dark glasses. The nose should be douched with some alkaline douche, as Seiler's solution or glyco-thymoline, and syrup of iodide of iron exhibited internally.

Just a word here, as to the preparation of yellow oxide of mercury salve. If the crystals of the oxide are not ground into impalpable powder, the patient will complain of the salve smarting, as a result of the numerous fine crystals cutting the surface of the eye ball. The following formula is very satisfactory:

℞ Hydrarg. Oxid. Flav. 0.075.
Ol. Rosae 0.10.
Misce et trit. qs., add
Lanolin.
Petrolati aa. qs. 15.00.
M. ft. sec. ung.

After adding the oil of rose the oxide should be rubbed with a spatula upon plate glass until all gritty sensation has disappeared, then the lanolin and petrolatum added and thoroughly mixed. Dispensed in collapsible tubes it will keep much better and is more easily applied.

Interstitial keratitis is usually manifested at from six to fourteen years of age in hereditary syphilitics. The cornea of one eye appears hazy and steamed, both eyes as a rule not being affected at the onset. Vision is interfered with as symptoms increase, because of the deposition of small, round cells within the corneal structure, and fine loops of vessels begin to encroach upon the cornea. The other stigmata of congenital lues are usually present, as snuffles, adenoids, Hutchinson teeth, etc.

Local treatment consists of atropine and protection with dark glasses. Inunctions of oleate of mercury should be pushed to the limit, applied twice daily upon the shoulders, breasts, buttocks, thighs and

soles of feet, using the different regions for each application, the child wearing the same underclothing and sleeping in them for a week, without bathing in the interval. This course should be kept up for three or four weeks or until the physiologic limit is reached, when ascending doses of iodides should be administered. The course of the disease is long and tedious, but the result is usually good.

Sub-conjunctival hemorrhages are of frequent occurrence and indicate high arterial tension in the peripheral blood vessels. The condition of the cardio-vascular system should be looked into. Local application of moist heat will aid in absorption of the exuded blood; if the bleeding persists, adrenalin instilled in 1-3000 strength will frequently cause the bleeding to cease long enough for a clot to form in the bleeding vessel.

The mobility of the iris is often the index to grave cerebral or spinal lesions, and the physician should familiarize himself with the normal conditions. The pupils in health should be of equal size. By covering the eye with the hand, the pupillary area will increase, to contract again when exposed to the light. This is known as reaction to light. The pupil also changes in size upon looking from a near object to a distant one: the reaction to accommodation and convergence. The Argyll-Robertson pupil is not affected by light but contracts upon convergence; this is usually one of the diagnostic symptoms in tabes dorsalis.

Insidious inflammation of the iris stroma, or iritis, is a common eye trouble, manifested by a circum-corneal injection of a violet pinkish hue, a muddy swollen iris, usually contracted, which responds to light stimulus very slowly. There is generally a great deal of pain, usually worse at night, and intolerance of light. As a rule one eye only is affected at a time. Examination of the urine shows it to be of high specific gravity and full of urates and uric acid; consequently insidious iritis is often called rheumatic iritis. Treatment is hot compressing ½ hour each three hours, instillation of atropine at frequent intervals each three hours at first, to dilate the pupil and prevent formation of posterior synechiae, and place the iris at rest. Dionin in 5 per cent solution, or powder once or twice daily, relieves pain and aids in the action of the atropine. Leeches applied to the temples for depleting purposes are rarely used now. Sodium salicylate or aspirin exhibited internally, with plenty of water, aids the elimination. Dark glasses should be worn to protect the eyes from light.

Glaucoma, a condition sometimes confounded with iritis, is one

of great seriousness and is a very frequent cause of blindness. It may be of slow painless onset, the patient complaining of diminished vision only (simple glaucoma), or it may be secondary to some other ocular disease or injury, being manifested by severe pain and loss of vision (secondary glaucoma). It may come on very suddenly with excruciating pain and marked loss of vision, soon resulting in complete blindness (fulminating glaucoma). In the fulminating type marked circum-corneal injection of a dusky red hue exists, with an irregularly dilated pupil not responding to light stimulus, anterior chamber shallow, cornea steamy and anesthetic. The eye ball is hard and resistant on palpation, showing increased intra-ocular tension. The patient frequently complains of a circle of color or a rainbow surrounding lights. It rarely attacks both eyes at the same time.

Contraction of the pupil by means of eserine in 1-10 to 1-2 per cent. solutions, to allow better drainage of the eye and reduce tension, is the first thing aimed at in the treatment; this should be used each three hours together with hot compressing until maximum contraction is reached, then less frequently. Dionin will also aid in this and help relieve the pain. It is authoritatively stated that nothing eventually stops the disease, although iridectomy in selected cases will often check the progress for years in simple glaucoma, as will also the continued use of miotics.

"Cataract can only be relieved by extraction." This statement should be modified to a certain extent: a few cases have been reported of the spontaneous disappearance of lenticular opacities, and also a few cases in which non-operative treatment has stayed the process in the lens and brought about an improvement in vision. However, none but quacks of the "first water" have succeeded in the removal of cataracts by the so called absorption treatment.

It is stated in nearly all text books on ophthalmology for students and general practitioners, that every physician should be familiar with the use of the ophthalmoscope. I venture to say not one in ten has so fitted himself. It takes years of practice with plenty of material to enable one to become expert in this method of examination; however, if one once becomes familiar with the normal fundus, it is easy to distinguish an abnormality, and even if the correct diagnosis cannot be given the patient may be advised to seek the aid of an ophthalmic surgeon.

Dr. Wm. A. Fisher, of Chicago, has gotten up a series of lithographs showing pathological eye grounds, which can be placed in a

schematic eye and the ophthalmoscope used to study them. This not only gives one practice in the use of the instrument but teaches the appearance of the abnormal fundus.

Muscular inbalance and refractive errors will hardly come under the domain of the general practitioner.

With regard to squint there is one very important point I wish to impress upon all, and that is that treatment CAN NOT BE COMMENCED TOO EARLY. The moment a squint is noticed, even if it is only occasional, is the time to commence treatment in order to secure the best results.

The fusion faculty, the non-development of which is now conceded to be the greatest factor in the etiology of squint, is in its developmental stage during early childhood, and in many cases seemingly trivial things which, if attended to at once, may easily be overcome, will interfere with its development. If squinting eyes are allowed to go uncared for until the parents think the child is old enough to wear glasses, with the hope that it may outgrow the squint, irreparable damage may be done, which will result in untold mental and physical suffering. No youngster with a developing squint is too young to wear glasses. I have placed them upon an 18 months old baby without the least trouble except that of anticipation. A squint allowed to go uncared for until the possessor is 7 years of age or older, usually results in very much diminished vision in the squinting eye, which cannot be improved with glasses and requires operative measures for correction.

Proper correction of existing errors of refraction, the maintenance of active vision in the squinting eye by the use of atropine in the fixing eye, and orthoptic exercises, will cure a very large percentage of convergent squints without operative interference, *if seen early enough.*

It has always seemed to me that the mistake made in the use of a little knowledge is that the possessor will not admit when he has reached his limit and call in help. We all have our limitations and happy is he who knows when he has reached his limit and will "acknowledge the corn."

Discussion.

DR. C. D. CONKEY of Superior:—The writer has covered a wide field. I will not follow him entirely but I will mention a few diseases.

Blepharitis is the most common, and one of the most obstinate of eye diseases. It consists of an ulcerative and a non-ulcerative form, and is easily handled. It is generally dependent upon a refractive error, and if the error of refraction is corrected early enough and stimulants used, such

as yellow oxide of mercury, it yields to treatment very nicely. But the ulcerative form, when we see it, is a very chronic disease. It commences in early childhood and we find it in children of very low vitality—scrofulous children—and it is very often neglected until it reaches the point of ulceration; we find that the whole lid is covered with thick scales, especially around the hair follicles, which are diseased; and in treating this disease it frequently becomes necessary to remove all the diseased hairs, and after removing these scales we find a deep raw surface which it is necessary to cauterize. I use a very strong solution of nitrate of silver, 40 grains to the ounce, applied twice a week. Carbolic acid in equal parts with alcohol is a very fine preparation for that trouble. But you will find that these ulcerations will return, and it is necessary to keep reapplying the treatment; and in the interval a good stimulant such as the yellow oxide of mercury is indicated; in addition to this we should always look for and correct refractive errors, because they are generally present.

The doctor well says that lacrymal disease is one of the most obstinate diseases we have to handle. We institute one mode of procedure and wish we had tried something else; but I have looked upon the disease of late years as a nose disease. I believe the largest proportion of these cases develop in the nose, following hypertrophic catarrh; and we will find that there is a thickened low turbinated and middle turbinated body, and a very highly congested lot of blood vessels around the orifice of the lacrymal duct.

The old probe treatment is used a great deal less than it used to be. It is necessary to use it some still, but I think that the profession is now given to using small probes, using them less frequently. As soon as we have a thorough canal established, a patulous opening, it is my practice and that of most ophthalmic surgeons, to use a syringe, to follow the use of the probe by the injection, so that you can flush the canal thoroughly every day or two, paying strict attention to the nose; cure up the catarrh if possible, and if not, put it in the best possible condition.

The doctor says that where abscess is formed it is necessary to remove the sac. If that is his statement, and I believe it was, I do not agree with him. I have seen a great many cases of lacrymal abscess of the most severe type, where the eye had recovered completely and drainage was thoroughly established, and there was very little trouble subsequently.

Ophthalmia neonatorum. There has been so much written on this subject of late years that the general practitioner is thoroughly familiar with it; and if eyes are still lost as a result of this disease, it is really a result of the failure in technique, because every man who practices medicine to-day knows how to handle ophthalmia neonatorum. Every man knows it is necessary to keep these eyes clean, thoroughly clean, and keep the pus removed. I do not believe that point has been brought out sufficiently. I think that the doctor who undertakes to treat these cases should put the child's head between his own knees, separate the lids with his own fingers and thoroughly flush the eye out himself, and not leave it to the nurse; he should at least supervise it and see that it is done, because if this pus is not entirely removed it will recur repeatedly.

Dr. Black seems to rely almost entirely on argyrol. Argyrol is a very fine drug, and I use it as a substitute in the intervals, but I place my reliance on nitrate of silver, because it has proved to be the best drug that

I have ever used for this purpose. I never lost a case of ophthalmia neonatorum, and never had a case of ulceration if I had the case thoroughly under my control. I use the nitrate of silver, 10 grains to the ounce, but it must be applied to the lid and not dropped into the eye, as with argyrol. Of course you cannot have the nurse apply it; it must be applied by the physician himself. Argyrol on the other hand can be dropped in the eye freely; but it requires a very strong solution. I use a 40 per cent solution of argyrol. There is another point about argyrol: it readily decomposes, and it is necessary to replace this solution frequently; and if you do not get results from the argyrol it is because it has deteriorated. A peculiar thing about ophthalmia neonatorum is that the mortality from the loss of sight is far less in the infant than it is in the adult, where we have the same poison. In gonorrheal ophthalmia the destruction of the eye is something frightful, and no matter what treatment is instituted we get poor results. It must be that the vitality of the child's eye is greater than that of the adult.

The treatment of ophthalmia neonatorum and of gonorrheal ophthalmia is practically the same.

I would like to mention also phlyctenular keratitis and conjunctivitis. These are a delight to treat if you only get at the foundation of the trouble. Most of these troubles are due to some irregularity in the digestive tract, dependent upon improper feeding. If we examine these children and get their history carefully, we will find that they have been fed promiscuously and that they have been given candies in large quantities and peanuts and coffee and all sorts of trash; the first thing I do in instituting treatment is to cut off these four items. Eliminate peanuts, candy, cakes and coffee.

DR. H. C. CALDWELL, of Ridgeland:—Is it safe for a country practitioner to treat squint in children—that is, babies two or three years old—and if it is not, what does a fellow have to know in order to do that right? I have had two or three little fellows, and it seemed to me that if I could make them use the eye it would be better.

DR. J. STEELE BARNES of Milwaukee:—To deal with the topics that the writer has brought up, would very easily require a whole volume; but to my mind the general practitioner can do a great deal toward alleviating these commoner diseases, if he keeps in mind a few of the cardinal principles of the disease, and also considers (as the general practitioner should) pathological conditions. The specialist nowadays has to deal largely with the pathological conditions, and uses the microscope more and more; in fact the pathology of the eye is getting to be an all important thing, even in these very common diseases. It is a decidedly interesting study, and once we have established a pathological diagnosis the treatment is plain.

Dr. Conkey has stated most of my ideas, in taking up some of the diseases, but there are one or two points I might enlarge upon.

With reference to dacryocystitis there is one point that I might emphasize. I find a great many cases are simply epiphora that are diagnosed as inflammation of the lacrymal sac, and supposed to be due to obstruction further down, even caused by a diseased nose; whereas the difficulty is often due simply to occlusion of the puncta or stricture of the canal to the sac, and a slight dilatation of these has often effected a cure in very distressing epiphora.

A peculiar feature in regard to "granulated lids" or trachoma, is that sixteen years ago, in Milwaukee, it was very prevalent, and even in the state there were quantities of cases; but for some unknown reason they have disappeared. I have seen but one case of true trachoma in six years. Whether that has been the experience of the other specialists I do not know, but as far as my experience goes the disease seems to have disappeared.

The main thing in gonorrheal conjunctivitis I always lay stress upon is, as Dr. Conkey said, cleanliness. I believe that you may have all forms of treatment and drugs galore, yet if you do not keep that eye clean you will get a poor result.

DR. N. M. BLACK, of Milwaukee:—This paper was not intended to be a bid to the general practitioner to send his eye cases to the eye surgeon, but to help him when he comes in contact with such cases. In reply to Dr. Conkey's objection to the removal of the sac in lacrymal abscess, I meant only when it was open externally through the skin, leaving a fistula and resisting all forms of treatment—that then it was necessary to remove the sac in order to effect a cure.

I think the statement the doctor made to the effect that the treatment of ophthalmia neonatorum is known by all physicians, is true; but the trouble is that the condition is not recognized early enough in the majority of cases, and treatment is not commenced soon enough to control it. If the condition is not recognized soon enough, and the proper treatment not instituted, there is usually a loss of the eye. Microscopical examination of the discharge will soon determine what exists, and proper treatment can be instituted. Otherwise the eye will be beyond help.

Relative to the virtues of argyrol and nitrate of silver, each has its own adherents who are equally enthusiastic over the results obtained by the two drugs.

What Dr. Conkey said about phlyctenular keratitis, regarding the digestive tract, is very important, and my failure to mention it was a serious oversight in the description of the treatment. Particular attention should be paid to the alimentary tract, and all greasy foods, sweets and food stuffs that will disturb the digestive apparatus of the youngsters, should be eliminated.

In regard to the treatment of squint by the country practitioner, the point brought up that, "if the squinting eye could be made more active, great help would result," is absolutely true, and the method of obtaining that activity of the squinting eye is by occlusion of the fixing eye, forcing all the work on the squinting eye, or by the use of atropin in the fixing eye, to throw the work on the squinting eye, I think that the best way for the country practitioner to carry out the treatment of a case of squint is to take it to an ophthalmic surgeon, and then follow out his directions in the case. The orthoptic treatment of a case of squint must be carried over a long period of time before results are obtained. If the treatment of a child with squinting eyes can be commenced before the age of seven, I think one can safely say that in the majority of cases, operative procedure for correction of that squint will never be necessary.

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EDITORIAL COMMENT.

AN APPEAL FOR FUNDS.

The *Ladies' Home Journal* and *Collier's Weekly* have fought many hard battles successfully. They have done for the medical profession what that body of men could never have successfully accomplished. They have helped frame and pass laws for our protection, but it would hardly be meet to ask them to enforce these laws for us, to wield the broom for our own housecleaning, after they have shown us the way. And so we are compelled to do a little thinking, and more doing, for ourselves.

As mentioned editorially in the December JOURNAL, financial aid is urgently needed to assist in the prosecution of those who are openly defying these laws. The governor of Wisconsin, to whom an appeal

was made, and who could lawfully lend aid, has refused to do so—for reasons best known to himself. The few interested doctors who undertook the laborious task of having the laws made and passed, have done their work well. This legislative committee now has a right to go before the physicians of the State and *demand the support of every member* of the Society—to put it up to the profession at large to assist in the enforcement of laws of which every honest reputable physician in the State must approve.

Unless this support is given, the disreputables can snap their fingers in our faces, and we cannot snap back—our hands are tied because we haven't the price. It is simply a matter of money now; it cannot be called a legal battle, because the law has been made for us, and it is on record in our favor.

The Public Policy and Legislative Committee has framed an appeal which has been sent to all members of County Societies. We desire to call attention to it anew by printing it in full. It is as follows:

Milwaukee, Wis., January 9, 1908.

Dear Doctor:—This is an appeal to you for money. It is a straightforward, honest appeal. It is coming right at you, not slipping upon you unawares, with a denouement at the end, like a quack medical advertisement. It is a worthy appeal for a worthy object, and it demands your interest because it knows that it is worthy. Read it through to the end.

We need money for the enforcement of our medical laws and we need it now. Cases are pending at this minute, the successful prosecution of which will make enforcement of our medical laws easy for all time, for those cases strike at the very root of medical quackery in Wisconsin. If at this time we can get the financial backing of our profession a long step will have been taken in ridding our state of the pernicious class of advertising quacks. Is this worth while, in your opinion?

Let us give you an example of what these quacks are doing. "Institutes" in Milwaukee have been taking from these patients an average of more than $150,000 a year. These institutes are fighting for their existence. We want to see them wiped out. It is a matter of court record that their methods are those of chicanery and fraud. One of them has been convicted once of conspiracy to defraud the public. It will be convicted on its appeal, if the case can be fought with vigor. For this we need money to aid the State Board of Medical Examiners to employ attorneys who know our laws and how to make their force felt. We need money and we want *you* to contribute.

Other cases are to be fought, cases against newspapers for accepting advertisements of the cure of venereal diseases, cases against illegal practitioners, against faith-curists and fakirs, against newspapers for accepting abortion advertisements, against a perfect raft of rascals who parade as physicians to the injury of the community and the detriment of the dignity of our profession.

This is why we want you to contribute. We want to uphold the hands of the State Board of Medical Examiners, and we want it to be said that the medical profession of Wisconsin, through its representative society, was the means of abolishing quackery from the state. Every member of our society can contribute something, some one dollar, some five, some more than that. We need much. Three thousand dollars is the least that we shall use, but every cent that is used will be used with effect. Write your check or buy your money order to-day. Don't delay. Send as much as you can and remember that every dollar counts.

This subscription is authorized by the Council of the State Medical Society. You will be informed of the progress of our campaign through the JOURNAL.

Fraternally,

Public Policy and Legislative Committee.
A. W. GRAY, Chairman,
I. G. BABCOCK,
O. H. FOERSTER.

Make checks and money orders payable to
A. W. GRAY, Chairman,
514 Goldsmith Bldg.,
Milwaukee, Wis.

MEDICAL DEFENSE.

Innovations of any sort are to be deplored if they fail to materially improve existing conditions. But when once installed and in favor the wonder always is that they are so late in arriving and so slow of adoption.

Elsewhere in this issue (p. 493) may be seen the report of the Medical Defense Committee and Dr. Sheldon's letter with reference to the matter. It is probable that, had not certain unfortunate ambiguities crept into the original and preliminary draft of the Committee's resolutions—submitted to the county societies—the subject as a whole would have received the unanimous support of all the county societies. Even so, some societies overlooked these ambiguities, inferring that the committee's intention was good, and that the fullest protection was intended. One society even added that if the one dollar additional wanted for this purpose were insufficient, it would readily increase the amount.

We believe that the adoption of Medical Defense for its members by the State Society, marks an era promising much future prosperity in our profession. There is nothing so prejudicial to peace and harmony as a profession divided against itself. In the JOURNAL of September, 1907, under the title "The Physician as Accuser," a correspondent very properly calls attention to the "shyster doctor" as

the one who frequently instigates suits against fellow practitioners. While the Utopian era has not yet arrived, we entertain the greatest hope that when the united profession, through its representatives, lends its aid to defend one of its members, the physician of repute who will use his influence favoring the prosecution, will indeed be of the avis rara variety. While no doubt there have been numerous suits, concerning which very little information has reached the bulk of the profession, such suits will hereafter be the property of the State Society, and will therefore be given such publicity as may seem warranted.

Besides having a deterring influence upon members of the Society who are of the kind as characterized above, other results are looked for. There are several hundred physicians, reputable men, who ought to belong to their county and state societies. When it is known what the extent of the actual benefit derived from such membership really is, at the additional cost of but one dollar per year, it ought to require but the asking to bring about the enrollment of these men.

And the provision that members of the Society who are in arrears will be deprived of their defense benefits, will gladden the heart of the treasurer: collections will no longer be the bane of his existence. The cash will come in unsolicited, and all will want to get under cover in due time.

We are very sanguine that Medical Defense will prove a pivotal point: it will harmonize the profession, reduce the number of "shyster" doctors, increase the membership of the county and state societies, and put the finances of these on a better footing. Incidentally, may it be observed, medical defense will do what its name implies: fight to the utmost, for the physician and with the physician, suits brought upon trumped-up charges instigated by attorneys, and those instituted to avoid payment of just bills for services rendered.

The executive committee composed of Drs. S. S. Hall, G. E. Seaman, and A. J. Patek, will make frequent use of the JOURNAL, to report all things pertaining to this subject that may appear of interest to the profession.

THE JOURNAL GIVES ITS AID.

The WISCONSIN MEDICAL JOURNAL has decided to take an active part in the anti-tuberculosis movement in Wisconsin, by devoting necessary space each month to chronicling the news from the front. A special heading will be used to identify the space and every effort will be put forth to furnish interesting and timely copy. (See p 490)

A LIVE PROGRAM FOR 1908.

The laudable ambition of the program committee to make the 1908 meeting of the State Society the most successful ever held, should have every possible encouragement, particularly as the means to be employed (WIS. MED. JOURNAL, Dec. 1907, p. 413) are an inevitable step if the society hopes to develop its latent possibilities and thereby keep in touch with modern progress.

The physicians of Wisconsin have long since advanced beyond that stage of intellectual stagnation where they could be interested in those text-book rehashes, usually devoid of the merits of completeness or even of literary polish, which constitute so many medical society papers.

Impossible as it is for every contributor to the State Society program to have both the ability and opportunity to discover and present something distinctly original, it should nevertheless be made quite as impossible for the society to be compelled to waste its valuable time listening to stereotyped puerile compositions. By making the opportunity to present papers depend upon relative merit, determined in open competition, and by keeping the number and duration of contributions well within the limits of human endurance, each contributor would the better appreciate his responsibilities and the honor done him, and our annual meetings would promptly become of actual rather than of supposititious value.

This Utopian condition, however, can only be the result of the continued activity of an efficient committee, and this can not be attained unless the personnel of the committee be subjected to incomplete annual changes, and unless its members possess a reasonable degree of energy and judgment.

"HOW I CAME TO ORIGINATE OSTEOPATHY."

During the past two years Mr. Edward M. Bok, editor of the *Ladies' Home Journal,* has done much through his magazine to expose the frauds of the quack and the dangers of patent medicine. Whatever his motive, whether solely philanthropic or solely for gain, or if there was a modicum of each, the end was good.

Doubtless many readers take seriously and consider as authoritative every article printed in this magazine. Occasionally, however, even in good publications, an article of doubtful chastity appears, and we must ascribe to it some other motive than that of being purely a bearer of good tidings; such an article might be an advertising scheme,

pure and simple, though veiled; it might be used as a 'filler' when stock is low; or it might be—a joke on dense readers and serious-minded contemporaries.

In the January *Ladies' Home Journal,* there appears an article entitled "How I Came to Originate Osteopathy", by Andrew T. Still, the originator of the cult. The keystone of the osteopathist's success, so says Still, rests upon a competent knowledge of anatomy. Still himself acquired the expertness of being able to put a skeleton together blindfolded. It is not our purpose to enter into a disquisition on osteopathy. Fortunate it is for mankind, however, and for the followers of Still, that but few of the latter will be inclined to subscribe to his statement about "the spinal cord which gives off its motor nerves to the front of the body, its sensory to the back,"—else they would surely not have gathered the large clientele of which many may boast.

He was a precocious youth—was Still. At age ten came his "first awakening to the principles which today have culminated in the science called osteopathy". A little later he contracted a severe attack of dysentery. "There were chilly sensations, high fever, backache and cold abdomen. It seemed to me my back would break, the misery was so great. A log was lying in my father's yard. In the effort to get comfort I threw myself across it on the small of my back and made a few twisting motions, which probably restored the misplaced bones to their normal position, for soon the pain began to leave, my abdomen began to get warm, the chilly sensation disappeared, and that was the last of the flux."

After 40 years of close observation and experimentation, having in this period taught his method to many young aspirants to fame and fortune, having successfully treated many cases of flux on the theory "that there might be a strain or some partial dislocation of the bones of the spine or ribs, and that by pressure I could push some of the hot to the cold places, and by so doing adjust the bones and set free the nerve and blood supply to the bowels"—after 40 years, says he, of such close application to business, this gifted luminary at last found an explanation of his "discovery":—there are no "such diseases as fever—typhoid, typhus or lung—rheumatism, sciatica, gout, colic, liver diseases, croup, or any of the present so-called diseases. They do not exist as diseases. I hold that, separate or combined, they are only effects of cause, and that, in each case, the cause can be found and does exist in the limited or excited action of the nerves which control the fluids of a part of or of the entire body."

We have a lurking suspicion that the more intelligent of Still's

followers will not love him for his weaknesses (anatomic and of theory) and do not look upon his article as a good advertisement of the science.

And now, Mr. Bok, will you please tell us which of the above-mentioned reasons actuated you in giving publicity to this sort of contribution? Was it an advertisement? If so, it may have paid you well, but we opine that many members of the genus 'gentle reader' will look upon it as a species of rubbish. Or did you need a 'filler' and use Still's masterpiece as such? Philosopher Dooley on Prince Henry's visit to America makes better reading, and at any rate, is to laugh. Or, Mr. Bok—be honest, please, though it wound our dignity—did you mean Still's essay as a joke on us serious-minded, pill-befogged doctors, divining that such an article would bring out a protest? Should a man seriously endeavor to prove that the earth is flat, would you, Mr. Bok, give him space to exploit his mediaeval belief? Fortunate are you in having a following—large, faithful, unquestioning. But if guileless millions are with you, why shake the confidence you have established through your previous publications for the scientific practice of medicine, by printing stuff such as was "discovered" by Still?

Ours is not a protest against osteopathy; we would protest equally much did any scientist—pseudo or near— medical or otherwise—make us read the unreadable rot that graces (?) page 25 of your January issue.

GOVERNMENT INQUIRY INTO FOOD PRESERVATIVES.

The reports of the Bureau of Chemistry of the Department of Agriculture, made by Dr. H. W. Wiley, are now being published by the department. Much interest through the newspaper accounts of the "poison squads" used by Dr. Wiley in his investigations, has been aroused throughout the country, and from a pharmacologic point of view this research concerning the effects of food preservatives upon the human economy is of decided value to the practitioner of medicine, and adds much to our knowledge of the effects of small doses of many supposedly harmless agents when acting through long periods.

Vol. III. of the reports which recently appeared, contains the results of studies on sulphurous acid and the sulphites, which are widely used in the technical operations in the preparation of foods. This is especially true in the production of wine, in the preparation of evaporated or desiccated fruits, and in the manufacture of molasses. Sulphurous acid in the form of burning sulphur is the form chiefly employed to prevent fermentation, to improve the color by bleaching, or to conceal decayed portions of fruit overlooked in trimming.

The experiments upon twelve individuals during a period of about six weeks consisted in the exhibition of sulphurous acid in aqueous solution and of the sulphites in capsules. The summary of results shows that in practically every case headache and digestive disturbances ensued from amounts of the preservatives comparable to those used in preparing food products. That the mental attitude might play some part was disproved during the salicylic acid tests when there was a demand for more food, the salicylic acid apparently acting as a stimulant. Sodium sulphite seems to have caused headache, loss of appetite, dizziness, and occasional nausea together with pains in the stomach, and other unfavorable symptoms. The cases receiving sulphurous acid in an uncombined state suffered from headache and nausea with a feeling of exhaustion and weakness, and together with these effects there was a slight average loss of bodily weight from both preservatives. The volume of water in the feces and the volume of urine were increased, and the total solids in the latter also were uniformly greater. In two of the cases, traces of albumin were found but awaiting further study, no conclusion is established from these.

Another effect which the administration of sulphur produces—one of more serious character still—is found in the improverishment of the blood in respect to the number of its red and white corpuscles. The bleaching effect on hemoglobin of the sulphur combinations was not apparent, but there was a pronounced diminution in the number of corpuscular elements, and this must be regarded as highly prejudicial to health. There is no evidence from the experiments that sulphur administered in small amounts through long periods ever exerts a favorable effect on the metabolism or takes any part in the nutrition of the tissues of the body containing sulphur, *viz*: proteids, hence no claim of food value can be made for these drugs. The verdict which must be pronounced in this case is decidedly unfavorable to the use of this preservative in any quantity or for any period of time, and shows the desirability of avoiding the addition of any form of sulphurous acid to products intended for human food.

The work of this department, and indeed the entire activity of the government, in the regulation and provision of a pure food supply for the people, should receive the heartiest endorsement of the entire medical profession, and the more technical results of its investigations be taken advantage of in future pharmacologic and physiologic experimentation.

INSURANCE FEES IN KENOSHA COUNTY.

The Kenosha County physicians have demonstrated that there is strength in a united front. In the Fall of last year a committee was appointed to sound all the physicians in the county upon their attitude toward "old line" and fraternal insurance organizations in the matter of fees. An agreement was finally reached, and it has been signed by every reputable physician in the county, irrespective of society affiliation. The Kenosha County physicians have shown a business like method in this action, and no one can gainsay them their *quid pro quo* demand, to which they are justly entitled.

The resolutions, signed by 35 physicians, are as follows:

"*Whereas*, nearly all of the "old line" Life Insurance Companies have agreed with the medical profession that a fee of Five Dollars is a reasonable and just compensation for the work, care and skill required to make an examination of an applicant for insurance, where a chemical analysis of urine is required; and

Whereas, Fraternal Insurance Societies demand the same amount of work, care and skill to make an examination of their applicant, and the very life and prosperity of the society depends upon the carefulness with which such examinations are made; and

Whereas, We consider it an unwarranted and unjust discrimination to render the same services to one party for a much smaller fee than that demanded from another party, unless it be for the sake of charity:

THEREFORE, We the undersigned physicians, of Kenosha County, Wisconsin, hereby agree and pledge ourselves that after this date we will not make or enter into, any new contract for less than a fee of $5.00 for each and every examination for life insurance with chemical analysis of the urine, and an additional fee of $3.00 where a microscopical examination of urine is required.

Furthermore, it is our opinion that a plan by which the fees for medical examination would be paid by the Society instead of by the applicants, would be feasible and of great advantage to the Societies.

THIS AGREEMENT goes into effect as soon as it is signed by every reputable practitioner of medicine in Kenosha County, Wisconsin.

Signed and became effective December 5th, 1907.

NEWS ITEMS AND PERSONALS.

Dr. John Conroy of Neillsville, will discontinue practice there and remove to Milwaukee.

The Northern Hospital for the Insane at Oshkosh has an orchestra of twenty pieces composed of inmates of the institution.

Dr. L. J. Rhoades, oculist and aurist, formerly practicing at Stevens Point and at Fond du Lac, died at White Pigeon, Mich., on December 27, 1907.

Dr. F. W. Epley, New Richmond, now recuperating at San Juan, Porto

Rico, is reported to be very much improved. His son, Dr. O. H. Epley, is attending to his father's professional work in his absence.

Dr. J. W. Coon, who has so efficiently directed the Milwaukee County Hospital for the past two years, will leave next month for New Mexico where he will become resident medical director of the Valmora Sanatorium, devoted to the treatment of tuberculosis.

Dr. Albert Hoffa, the famous orthopedic surgeon and professor in the University of Berlin, is dead. He is credited with having originated the methods which developed the bloodless cure for congenital hip dislocation as practiced by Dr. Adolph Lorenz.

Dr. W. D. Neville, for years local physician for the Northwestern railroad, and prominent in the professional and political circles of northern Wisconsin during the last twenty years, has left for southern California and Arizona, where he will spend the remainder of the winter in recuperating his health.

The Oconomowoc Health Resort, beautifully situated on Nashotah Lake, was completely destroyed by fire on the night of January 15th. The building had but recently been remodeled by Dr. A. W. Rogers, at great cost, and was most admirably adapted for sanitorium purposes. We hope Dr. Rogers may find it possible to rebuild on the same favorable site.

New Richmond. "Dr." John Till of plaster on the back fame, who was alleged to have paid a fine of $50 for practicing medicine in Wisconsin without a license, is again working overtime to accommodate his patients. The "doctor" announces that he will postpone his visit to Germany this year. He has sent $10,000 to the banks at Hamburg to be deposited to his credit. He also sent handsome cash presents to relatives in Germany. (*Milwaukee Sentinel.*)

IN MEMORIAM.

NICHOLAS SENN, M. D.,

By Horace M. Brown, M. D., Milwaukee.

The loss to the medical profession of the world from the death of the late Dr. Nicholas Senn, is one which cannot by any possible chance be estimated until such time has elapsed as will enable the scientific world to look back upon his efforts for the advancement of medicine and other sciences from a distance of time sufficiently long so that the correct proportions of the influences that his labor has exerted upon the thought and practice of the medical world, can be duly judged. This is so for the reason that many of the things that were the product of the untiring energy and effort of Dr. Senn were essentially original ideas, and like the original ideas of all original thinkers his thoughts must undergo the process of development and elaboration by others who are more capable to exercise these latter functions than to originate or establish new scientific fundamentals.

Dr. Senn is held to-day all over the world as one of the greatest of the men that the medical world of the United States has ever developed. I believe that with the passage of time this opinion will be in no wise diminished, but on the contrary, will continue to grow, and that the name of Nicholas Senn will, in the history of medicine, be ranked with those fathers of the profession, Harvey, Hunter and the others who have dared to think and give practical application to their thoughts.

Dr. Senn's character was by no means a complex one, and its principal characteristics were singleness of purpose and almost unbounded self-confidence. These two attributes, combined with the capacity for concentration and the love for work which amounted almost to an obsession, were the things that enabled the poor son of a poor Swiss peasant, starting with nothing in the world, to fight a battle for success, the completion of which in its perfection is well known to all of us.

It was the fortune of the writer of this article to have crossed the ocean upon the same steamer with Dr. Senn upon four different occasions, and although the writer had known Senn during the years of his development and the development of his reputation in Milwaukee, at no time were the salient characteristics of the man so manifest as during the close intimacy of these journeys. Upon these occasions, when other men would have been absorbing health and vitality from the beauties of the ocean and the quiet monotony of the journey, Dr. Senn was found from 8 o'clock in the morning until 11 o'clock at night, day after day, in the smoking room of the ship, with a pile of books, manuscripts, notes and references, utterly and completely absorbed in his work, writing, thinking and studying, while he smoked his famous brand of Mayville cigars, utterly unconscious of the noise and clamor of the games of other men going on about him, selfcontained, absorbed, deep in the world of thought and work, so far removed from his surroundings that no greater incongruity could possibly be imagined.

In his home life in Milwaukee and in the daily exercise of the duties of his profession the same characteristics were manifest. To those who knew him it seemed that there never was a moment of his life that was given to what other men would have considered recreation. His capacity for work was unbounded, and no limitation of time, marked by the hands of the clock or by the rising and setting of the sun, in any wise modified his persistent impulse for work when work was to be done—and with Senn there was always work to be done. He possessed in a large degree, a faculty for surrounding

himself with younger men and interesting them deeply in his work and imbuing them with his own enthusiasm, made them proud and glad to labor in the advancement of his ideas in the work involving petty detail and tiresome minutiæ.

I think it is safe to estimate that there are a good two hundred men in the medical profession to-day who owe their success in their occupation to the influence and example given them by Dr. Senn, and who will agree with me in the statement that but for his influence and example their lives in the profession would have been but the commonplace routine of the ordinary practitioner. But so great was the personal magnetism of the man, so infectious his energy, so admirable his self-confidence, and so wonderful his capacity for work, that no man young in the profession and free from the prejudices that come with the routine of the medical life could fail to be infected with some part of these notable qualities, and be a better man as the result of this influence. At the time when there were but few names upon the list of American physicians that were familiar in the great medical centers of Europe, that of Dr. Senn stood high in the estimate of the great European investigators, and he was looked upon as a marked man by the great men of medicine of the old country even at a period before those great strides in medicine had been taken in this country that have given to the medical profession of these United States a good name second to that of the physicians and surgeons of no other country in the world.

Dr. Senn laid the foundation of his great reputation while in Milwaukee. He began his medical career in a small town of the State of Wisconsin, and Wisconsin and Milwaukee may justly claim him for their own. His field for the exercise of his great abilities was larger in Chicago than here, and it was our loss and Chicago's gain when he left us for his greater field in that city.

The reflected lustre of his name and his deeds will always shine for Wisconsin, and we of the medical profession of this great state may well be proud that such a man lived and grew among us. For us in a greater degree than for any other section of the medical body, his loss is deplorable, but we know that we share with the world in the regret that such a one should have been so suddenly taken from among us. The loss is not ours alone, it is the world's, but Dr. Senn leaves behind, as a legacy, the example of his life and efforts that should be an encouragement and incentive to effort in the breast of every member of our profession, in which he was such a brilliant factor and in which his influence will be felt through many generations.

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Wisconsin Committee of the International Congress on Tuberculosis.

WASHINGTON, SEPT. 21-OCT. 12, 1908

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WISCONSIN COMMITTEE OF THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

It is occasion for self gratification that no other profession than the medical could be successfully approached and asked to take a leading part in a campaign whose object is to ultimately wipe a source of its financial revenue out of existence.

It is true, however, that the leaders in great sanitary movements are almost without exception practicing physicians. It is upon this willingness of medical men to make their temporal financial welfare subservient to the great good of humanity that our real claim to professionalism is established.

The physician whose life is made up entirely of visits to relieve constipation, set broken bones, or act in emergencies, might almost as well be a successful plumber or merchandise vendor. When, however, he takes advantage of those opportunities that his study and intimate knowledge of the needs of humanity give him and uses whatever power he may possess to fight causes instead of consequences, then indeed does he become great.

No greater opportunity has presented itself in a century for physicians to assume public leadership in a war whose glories will be greater than those of the most sanguinary encounter in history. Physicians, because of their technical skill and knowledge, are needed for the commissioned offices.

Will you volunteer to organize and lead a company, a batallion or a regiment in the war against tuberculosis? The campaign has been started but is being handicapped by a lack of strong fighting men. Every physician in Wisconsin can and should take some part in this movement. Recruit your editors, educators, pastors, philanthropists,

club and lodge workers in this work that is designed to establish the survival of the individual, the home, and the state.

The work of the National Committee of the International Congress goes on apace, and the reports being sent out are indicative that a wonderfully attractive and valuable meeting will be held next September.

Forty-six foreign countries are identified with the congress and will be represented. Reading the names of the delegates who have been appointed from the European countries suggests a post-graduate European tour. Even the South American countries and our own territorial countries are to be represented by their strongest medical men. A large number, if not all of the states, are at work through state committees doing something in their own way to further their local part in the crusade.

The Wisconsin Committee has decided upon two features—to prepare as good as local exhibition as possible to be sent to Washington as a feature of the International Congress, and one which will later be made to repay its cost in money and labor by saving lives through local exhibitions. The other feature characterizing the Wisconsin movement is an attempt to reach every Wisconsin citizen, if possible, through the lay press, and to impress upon him the facts that *tuberculosis* is *curable, communicable* and *preventable.*

At the meeting of the Wisconsin Committee held in Milwaukee the remaining permanent officers were elected, and an executive committee was appointed.

An attempt will be made to raise $5000 for the purpose of carrying out the program of the Wisconsin Committee. No salaries are being paid the workers, and public spirited individuals who are induced to subscribe to the fund, may be assured that their money will be expended to the best possible advantage.

H. E. DEARHOLT, *Secretary.*

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President

Herman Gasser, Platteville 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

TERM EXPIRES 1911.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

TERM EXPIRES 1912.

3rd Dist., F. T. Nye, - - - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1913.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., C. J. Combe, - - Oshkosh

TERM EXPIRES 1908.

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - - Marinette

TERM EXPIRES 1909.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

TERM EXPIRES 1910.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

ANNUAL MEETING OF THE COUNCIL.

The annual meeting of the Council was held at Milwaukee, January 2nd, at the rooms of the Milwaukee Medical Society, and was called to order by Chairman Boothby at 11 A. M. There were present Councilors Sears, Windesheim, Nye, Cunningham, Mears, Sauerhering, Boothby and Dodd, with Treasurer Hall and Secretary Sheldon.

The report of the committee appointed to prepare a plan of Medical Defense was first considered. The secretary reported that 40 county societies had filed their action of the report—35 being in favor and five in opposition. The second article of the report was amended to read as follows: "On and after January 1st, 1908, it shall be the duty of the Executive Committee to investigate all claims of malpractice against members, and if, in their judgment, the case is one to be properly defended, to forthwith forward all papers connected

with the case received from the applicant for defense to the attorney of the Society; but they shall not pay, nor obligate the Society to pay a judgment, claim or settlement against any member." On motion, the report as amended was unanimously adopted by the Council.

The Council then proceeded to elect an Executive Committee of three as follows: Dr. G. E. Seaman, Milwaukee, Chairman; Dr. A. J. Patek, Milwaukee; and Dr. S. S. Hall, Ripon.

On motion the Secretary was directed to print 3000 copies of the report, to be sent to the Councilors, and by them sent to every reputable practitioner in their several districts.

Dr. S. S. Hall was elected treasurer for the coming year and Dr. C. S. Sheldon, secretary.

Reports were then received from the Councilors present as to existing conditions in their respective districts.

On motion adjourned.

C. S. SHELDON, *Secretary.*

MEDICAL DEFENSE.

As stated in the report of the meeting of the Council, 40 societies have thus far reported action on the report of the Committee—35 for and 5 against. Of those in favor 29 are unanimous, four gave one negative vote, one 2, and one 3. Of the 5 societies voting adversely, Brown, Chippewa, Green and Green Lake-Waushara do not favor the general plan of medical defense, though all seem to misapprehend the true meaning and purpose of the plan proposed. Dodge is in favor of medical defense in general, but objects to the phraseology of the plan as first reported, but Dr. Sears thinks the society would favor the plan as amended by the Council.

Brown thought "the proposed plan would result in very little of practical value", Chippewa reported that "members present thought it would not benefit them in the least, as it did not defend", and it was "laid on the table". Green reported, "we think we have been sufficiently milked, and vote solidly against the proposition."

"Green Lake-Waushara seems to have considered the subject seriously, and their objections—which are aimed mainly against the first report—are as follows: 1st. The scheme really provides no *defense.* 2nd. It will encourage the prosecution of cases to have a committee *investigate* and attempt to arrange a settlement. 3rd. The additional tax will influence members living in remote districts—unable to attend meetings—and who keep up this membership as a professional duty—to drop their membership. 4th. "We haven't a mem-

ber who ever had a malpractice suit," and so the work hardly seems necessary. 5th. "The negative vote was an expression of conservatism. It is an easy matter to add this and that to the scope of the State Society's work—each carrying its additional fee, and providing a job for a lawyer, or someone else, till the burden becomes too great."

I think most of these objections would be obviated by a full understanding of the plan, and a knowledge of its results in other states. As to "defense" the very best possible is contemplated—backed by the whole membership of the society, prosecuted by the ablest lawyer obtainable, and carried to the courts of last resort—without expense to the applicant. The "investigation" would be simply to obtain the true nature and bearings of the case, and practically *all* cases will be fought out which are defensible from any standpoint. As to the doctors in remote and isolated districts—it would tend to strengthen the Society, since though unable to attend society meetings, they would have at least some return for their yearly dues, which they would appreciate.

Because no member of a society has ever been threatened with a malpractice suit, it does not follow that such immunity will be permanent.

At all events the plan has been adopted by the societies, and by the Council, and it remains for us to give it a fair trial. The yearly addition of $1.00 need be a burden on no one if we feel it is accomplishing any good purpose. A malpractice suit is such a bad thing, that, even if we didn't expect to have to meet one ourselves, we should be willing to add our mite to help a brother practitioner out of his trouble.

I think the Society is to be congratulated on the personnel of the Executive Committee—who will formulate the necessary procedures, engage an attorney, and take charge of all threatened suits. The committee has been organized by electing Dr. Patek as Secretary and Dr. Hall as Treasurer.

The following statement, together with the report on Medical Defense adopted by the Council, will be sent to every reputable practitioner in the State.

Madison, Wis., Jan. 13, 1908.

Dear Doctor—We send you herewith the report of the Committee on Medical Defense, which has been approved by the County Societies and which was adopted by the Council at their Annual Meeting, Jan. 2. In accordance with the plan the following Executive Committee was elected: Dr. G. E. Seaman, Milwaukee, Chairman; Dr. A. J. Patek, Milwaukee, Secretary, and Dr. S. S. Hall, Ripon, Treasurer.

This Committee will formulate a plan of procedure in cases of threatened suits for mal-practice, retain a first class attorney—probably in Milwaukee—and will soon be ready to defend without expense to the applicant for defense, and to the Courts of last resort, all cases which are from any standpoint defensible.

The plan entails an expense of $1.00 annually, in addition to the regular dues. Experience may show that this is more than is needed, continuously, since the Secretary of the Illinois State Medical Society estimates the actual cost per member to be 47 cents annually. We hope the membership will assume this added expense cheerfully and loyally. It would be worth all it costs for its moral effect in uniting more closely the whole profession of the State. In addition, it offers the best possible defense to every member of the Society who has to face a threatened suit for mal-practice. Every State Society which has adopted the plan—New York, Pennsylvania, Maryland, Illinois—is enthusiastic in its support. Let us give it a fair trial.

REPORT OF COMMITTEE ON MEDICAL DEFENSE.

The Committee appointed at the last meeting of the State Medical Society to draw up a plan of Medical Defense by the Society, which should be submitted to the County Societies for their consideration, begs leave to submit its report in the form of the following recommendations:—

1. The Committee of Medical Defense shall consist of the President, Secretary and Treasurer of the Society—with the 12 Councilors, who shall select from their number, or the Society at large, an Executive Committee of three—designating the chairman—and who shall also by virtue of their appointment, become members of the Committee of Medical Defense. The Executive Committee shall be perpetuated by the election of one member each year. The term of service of each member shall be three years, provided that, as first organized, the service shall be determined by lot, with terms expiring in one, two or three years respectively from January 1, 1908.

2. On or after January 1, 1908, it shall be the duty of the Executive Committee to investigate all claims of malpractice against members, and if, in their judgment, the case is one to be properly defended, to forthwith forward all papers connected with the case, received from the applicant, to the attorney of the Society, but they shall not pay, nor obligate the Society to pay, a judgment, claim or settlement against any member. Provided that the Committee shall have discretionary power in the selection of cases for their action.

3. The Executive Committee shall adopt rules for their guidance and for the guidance of the members of the State Society to contract with such agents (attorney or other) as they may deem necessary.

4. They shall have charge of the Medical Defense Fund, which fund shall be secured as follows:

A. Each member of the State Society shall be assessed $1.00 a year for this fund alone, to be paid with the regular State Dues, and shall be subject to warrants signed by the Chairman and Secretary of the Executive Committee.

B. The Executive Committee shall at each Annual Meeting of the State Society make to the House of Delegates, a detailed report of all expenses

incurred, and work done during the year ending on April 1, next preceding the meeting.

C. No action shall be taken by the State Medical Society of Wisconsin in reference to an act committed prior to January 1, 1908, or before the date of qualification of the accused as a member of the Society. Furthermore, no member shall be entitled to the privileges of defense by the Society whose dues to the Society are not paid in advance, as elsewhere provided in the Constitution and By Laws, and such defense shall be granted only to members residing in Wisconsin and not to nonresident or affiliated members.

L. H. PELTON,
JULIUS NOER,
EDWARD EVANS,
JOHN J. McGOVERN,
HENRY B. HITZ,
CHARLES S. SHELDON.
ARTHUR J. PATEK,

DANE COUNTY MEDICAL SOCIETY.

The Dane County Medical Society held its annual banquet at Keeley's, Madison, on December 10, 1907, with 37 members present. After the repast the following program was carried out:

1. *Caricature in Medicine, Illustrated Lantern Slides*, by Prof. W. S. Miller.
2. *Food and Drug Adulteration* by Prof. Richard Fischer.

Prof. Miller's lecture and slides were not only very entertaining but instructive historically and otherwise. The caricatures were mainly from the layman's point of view showing how "others see us" and how the layman regards the various new discoveries in medicine as they have come forth in the different epochs of our period of development. The selection was very extensive and varied and gave a very good resumé of medical history from the twelfth century to the present day.

Prof. Fischer gave an account of some of the work of the State Chemist in detecting and exposing the adulterations in various foods and drugs put on the market in violation of the pure food laws. His list of samples of adulterated foods was varied and extensive.

The annual election of officers resulted as follows: President, Dr. P. R. Fox; vice-president, Dr. C. A. Harper; secretary and treasurer, Dr. L. H. Fales; member of board of censors for three years, Dr. H. A. Gilbert.

The report of the committee on Medical Defense as published in the WISCONSIN MEDICAL JOURNAL for November was unanimously adopted.

J. NOER, M. D., *Secretary.*

DODGE COUNTY MEDICAL SOCIETY.

A special meeting of the Dodge County Medical Society was held at Beaver Dam, Dec. 23d.

The following members were present: Drs. Sears, McDonald, Holtz, Webb, Webb, Voorus, Prasch, Reineking, North and Dewey.

The "Report of Committee on Medical Defense" was read. A general discussion followed. Communications from Dr. C. S. Sheldon and Dr. Julius Noer regarding the "Report" were read. It was moved and seconded to unqualifiedly reject the "Report of Committee on Medical Defense," but, notwithstanding, to favor Medical Defense of a more definite nature. Carried unanimously.

Eight letters and telephone messages from members, all of which, stating they were in favor of the "Report of Committee on Medical Defense," were allowed to go on record as in favor of the "Report."

Total result: For the adoption of "Report."....8 (By proxy).

Against the adoption of "Report," but in favor of Medical Defense of a more definite nature .....10.

Adjourned until 1:30 P. M.

Paper, *Diagnosis and Treatment of Diphtheria*, by Dr. C. F. North.

Paper, *Quarantine*, by Dr. E. M. McDonald.

GEO. W. DEWEY, M. D., *Secretary.*

MARATHON COUNTY MEDICAL SOCIETY.

At the annual meeting of the Marathon County Medical Society the following officers were elected for 1908: President, Dr. H. L. Rosenberry; vice-president, Dr. E. M. Macauley; secretary and treasurer, Dr. F. C. Nichols; delegate, Dr. D. T. Jones; alternate, Dr. D. Sauerhering. It was decided to hold a joint meeting of a semi-public character with the Ninth Councilor Medical Society on January 29th.

F. C. NICHOLS, M. D., *Secretary.*

OCONTO COUNTY MEDICAL SOCIETY.

A regular meeting of the Oconto County Medical Society was held at Oconto, December 6th, 1907, with twelve members present. Dr. T. J. Redlings, Councilor for the Eighth District was present and gave a very interesting talk on medical organization. Dr. Will C. Watkins was elected to membership. The following officers were elected: President, Dr. C. E. Armstrong, Oconto; vice-president, Dr. O. P. Voigt, Gillett; secretary and treasurer, Dr. J. C. Grant, Lena; censor, Dr. R. J. Goggins, Oconto Falls; delegate, Dr. O. P. Voigt; alternate, Dr. C. E. Armstrong.

On motion it was unanimously voted that the report of the committee on medical defense of the State Society is favored and its adoption recommended.

Dr. Will C. Watkins, of Oconto presented a case and read a very interesting paper on *Adenoids and their Effect upon the Nervous System.* Dr. C. W. Stoelting of Oconto, presented a case of *Charcot's Joints.* Dr. M. M. Robbins of Hickory gave a paper on *The Care of Pregnant Women and Parturition.* The papers were thoroughly discussed. All present manifested much interest in the work of the society. A program committee was appointed to arrange for post-graduate work in our society the coming year. The meeting was adjourned to meet at Oconto Falls in February.

J. C. GRANT, M. D., *Secretary.*

PIERCE COUNTY MEDICAL SOCIETY.

The Pierce County Medical Society has elected the following officers for 1908: President, Dr. S. F. Rudolph, Ellsworth; vice-president, Dr. E. R. Holiday, Ellsworth; secretary and treasurer, Dr. R. W. Cairns, River Falls; delegate, Dr. R. W. Cairns; alternate, Dr. A. N. Kerr, Martell. Quarterly meetings will be held and a program for the year will be prepared and printed. The Society voted affirmatively on the question of Medical Defense and on the question of a 25 cent tax for the District Society.

Dr. Arthur Sweeney of St. Paul read a very interesting paper.

E. L. BOOTHBY, M. D., *Councilor.*

WASHINGTON COUNTY MEDICAL SOCIETY.

The fifth annual meeting of the Washington County Medical Society was held December 26th, 1907, at the residence of Dr. E. J. Butzke, Jackson. The meeting was called to order by the president, Dr. J. E. Reichert.

Dr. J. E. Reichert presented a paper on *Professional Fellowship*, in which he pointed out some of the unethical as well as the ethical methods of physicians, and related some interesting illustrations. There was great interest taken in the subject by the members, and every member of the society should have been present to have heard it.

The members present were all heartily in favor of the association plan of protection and were willing to pay the extra fee and more if needed.

The following officers were elected for the ensuing year: President, Dr. C. Bossard, Richfield; Vice-President, Dr. H. H. Albers, Allenton; Secretary and Treasurer, Dr. E. J. Butzke, Jackson; Censor, Dr. N. Edward Hausmann, Kewaskum; Delegate, Dr. E. J. Butzke.

The following committees were appointed: Drs. W. J. Wehle, G. A. Heidner and J. E. Reichert to keep the society posted on the practicability and the best automobiles for physicians. Committee of Health and Legislation, Dr. W. J. Wehle.

Next meeting place, West Bend, March 26th, 1908.

After the meeting luncheon was served by Mrs. E. J. Butzke. The members then departed with an enthusiasm for better work.

E. J. BUTZKE, M. D., *Secretary.*

WAUKESHA COUNTY MEDICAL SOCIETY.

A regular meeting of the Waukesha County Medical Society was held at the residence of Dr. Hodgson, on January 2, 1908. After a delicious luncheon the meeting was called to order and the retiring president, Dr. M. R. Wilkinson, introduced the president-elect, Dr. Hugo Philler, who gave the following interesting address:

"In assuming the duties of your presiding officer, I must in the first place express my sincere appreciation of your choice, the thing being done in my unavoidable absence from the meeting. I will try to keep order with impartiality and equity, and the burden will be lightened by your kind assistance and support of my rulings. The first thing to be done, is to

gather in the few stragglers, who still remain outside of the protecting fold, forgiving and forgetting previous personal grievances, and to try to keep up the present membership and retaining our good standing in the State Medical Society. 'United we stand, divided we fall,' is an axiom, which proves its merits in professional, financial and social aspects daily, and should henceforth be our motto.

In the next place I beg leave to call your attention and consideration of a resolution, adopted unanimously at a former meeting, to-wit: Cutting out entirely the much talked of Contract and Lodge Practice, such practice being unprofessional, unethical and lowers our standing in the community. Most county societies in this State have passed iron-clad resolutions with the best results to the pockets of the general practitioner. I trust, that the resolution on our minute-book is not a dead letter, but that each of us will follow it to the letter.

You may perhaps say, 'New brooms sweep well,' but I intend to commence by the authority invested in me with an innovation, which is left for you to adopt or to reject. We have at this time a membership of 39 doctors in good standing, of which many have not attended one meeting, nor have participated and assisted in the scientific work, by either reading or by taking active part in the discussion of those prepared by other members. Those who stay by the flag and burn the midnight oil, in writing an essay, must feel chagrined if only a corporal's guard listens and remains indifferent as to the merits or defects of the paper. I therefore invite with all my heart a greater display of the individuality of the members present by participating more profusely, than heretofore, with their criticisms. With this view I desire to lay before you the following plan: At the beginning of each meeting the President will appoint a committee of three; said committee will retire and select a subject for discussion for next month's gathering, dividing the work amongst themselves as to Pathology, Symptomatology and treatment of the surgical lesion, internal disease or obstetrical matter, and make a report of their selection before the closing of the session.

Such 'Symposium' arrangement works well in other societies, of which I have the honor to be a member, and I do not see a reason why it should not awake the spirit of original research in our society. We have the timber, it only needs to be prepared and will make eventually a beautiful edifice of thought and experience, and we will not stand in the back-ground when at the Wisconsin State Medical Society the working bees are separated from the drones. The Brainard Medical Society, which meets every three months at the Milwaukee Hospital, and to any meeting of which I cordially invite you, one and all, for being once there as a visitor, you in all probability will ask for an application blank for membership.

This Society has arranged their year's work as follows:

First Meeting (2nd Wednesday in January) Obstetrics and Pediatrics.

Second Meeting (2nd Wednesday in April) Gynecology.

Third Meeting (2nd Wednesday in July) Practical Medicine.

Fourth Meeting (2nd Wednesday in October) Surgery.

Every member on these several committees is expected to deliver his paper in person or send it to the Secretary, if prevented from attending the meeting, and I assure you from actual experience since 1890, when I became a member, that very rarely a committee dodges their obligation and that the

many subjects presented embodied the latest researches, discoveries, progress and advancements in the methods of investigation, examination and treatment in the various diseases and injuries, with their complications and results in each of the departments of the medical sciences.

Dr. Hodgson then read his paper on *The Use and Abuse of Drugs.* He said in part that changes which take place in test tubes may not and do not take place in the human economy. The few nauseating drugs of years ago have been replaced by many pleasant and less violent medicines. Only nature cures, we can only guide. Eddyism, Dowieism, etc., thrive because they "cannot do harm." Many are afraid to call a physician for fear of nauseating, dangerous and powerful drugs. "Shot-gun" prescriptions were derided. Also below the dignity of the profession to prescribe patent nostrums, Gray's Glycerine Tonic Compound, Panopeptone, etc. Use only well known and tried remedies. More people are killed than saved by drugs. Drugs are foreign substances to the system and are beneficial only when carefully used. Do not give the baby many drugs. Its stomach is only as strong as the rest of its body so do not give those nauseating and corroding poisons.

The paper was well discussed by each member.

The Committee appointed on the program for the next meeting chose the subject: "Epidemic Spinal Paralysis," and divided it; Etiology, Dr. Wing; Pathology, Dr. Love; Treatment, Dr. Davies.

M. M. PARK, M. D., *Secretary.*

BOOK REVIEWS.

Immune Sera. By CHARLES F. BOLDUAN, M. D., Bacteriologist, Research Laboratory Department of Health, City of New York. Cloth, 162 pp. Second Edition. Price $1.50 (net) John Wiley and Sons, New York, 1907.

The recent second edition of Dr. Bolduan's very excellent little book, while showing an enrichment in nearly all of the chapters of the earlier edition, has been particularly enlarged, however, by an addition of several brief chapters on snake venoms, and their antisera, agglutinins, opsonins, and serum sickness.

For a clear and concise exposition of our present knowledge concerning the constitution and mode of action of antitoxins, agglutinins, hemolysins, bacteriolysins, cyto-toxins, precipitins, and opsonins, we know of no other book that we could recommend so unreservedly as this one by Dr. Bolduan. (G. C. R.)

The Life of Nathan Smith Davis, A.M., M.D., L.L.D. By I. N. DANFORTH, A.M., M.D. Illustrated. Cleveland Press, Chicago.

Biographic medical literature, particularly American, is chiefly noted for its paucity. This cannot be wholly due to the circumstance that only a few men have succeeded in so elevating themselves above the "common herd" as to constitute themselves beacon lights, whose life histories would be both interesting and profitable reading.

It would seem to the reviewer that it is more readily explained on the

assumption that in the hurry and scurry of life, old men are, or at least have been, contending with the "boys" for the more physically active offices of the profession to the neglect of the more quiet mental and intellectual pursuits proper to the "age of repose."

In the biographic sketch before us we have an interesting account of the various activities, social, religious, philanthropic, sociologic, educational, and professional, of a man who was for many years held in the highest esteem by all who knew him.

The story is told in an interesting manner and the author has dwelt happily on those special traits of character, public services and guiding principles, which make such a life as that of Dr. Davis an object lesson and inspiration to the rising generation.

Of considerable interest is the opening chapter of the book which is devoted to a brief and general statement of conditions prevailing at the time when Dr. Davis was passing into adolescence.

A full exposition of the active part taken by Dr. Davis in the organization of the American Medical Association is given, and the book closes with a series of reminiscences and comments on the various characteristics of the man. (W. H. W.)

Modern Clinical Medicine. Diseases of the Nervous System. Edited by ARCHIBALD CHURCH, M. D., Professor of Nervous and Mental Diseases and Medical Jurisprudence, Northwestern University Medical Department, Chicago. An Authorized Translation from *"Die Deutsche Klinik,"* under the General Editorial Supervision of JULIUS L. SALINGER, M. D. With 195 illustrations in the text and five colored plates. New York and London. D. Appleton & Company, 1908.

The names of the authors who have prepared the various monographs of this work are in themselves an assurance of able and comprehensive presentation of their respective subjects.

We mention Quincke on "Lumbar Puncture," Wernicke on "Aphasia," Edinger "Headache and Migraine," Erb "Paralysis Agitans," Ziehen on "Hysteria."

The introductory articles on "Anatomy," on "Histology"—normal and pathologic, on "General Neurological Diagnosis," and "Modern Aids to Diagnosis," are especially useful. As a rule the treatises are comprehensive without being too elaborate, and most of them represent the present-day knowledge of the subject, though in one instance we notice the data upon the title page (1908) is at variance with the matter presented. "The Symptom Complex of Aphasia" by Wernicke, if written any time within the last two years, would take some notice of the iconoclastic assault of Marie upon Broca and his followers. Furthermore, Wernicke, who is credited to Breslau, had removed to Halle as early as 1904, to take charge there of the Psychiatrische Klinik.

A large body of very valuable clinical description is to be found in this work. Its especial use will be to the general practitioner particularly in neurological practice, and the well-informed specialist may read most of these papers with interest and profit. (R. D.)

Handbook of Human Physiology. PROF. W. NAGEL, Berlin, in conjunction with many collaborators. Volume II. 213 illustrations and 3 plates. Braunschweig. F. Vieweg und Sohn, 1907. Leather. M.35 ($8.75).

The importance and the great value of this modern handbook of physiology were set forth in our review, in the Wisconsin Medical Journal, August, 1905,p.181. Its chief object is, as indicated in the title, the physiology of man, and the physiology of animals has only so far been drawn upon as the latter serve in experiments as substitute for man. A greater space is given to those chapters which are of most interest to the physician.

Volume II contains the physiology of the glands, of inner secretion, of the uropoetic, genital and digestive organs. A glance at the first chapter of 45 pages by H. Boruttau on "Inner Secretion" reveals at once the great progress of physiology within the last 25 years, as in the then standard work of Hermann only a few words were devoted to this subject. After general remarks on inner secretion, by which is meant the secretion of substances of nutrition and assimilation into the blood and their influence on metabolism, the histology and physiology of the thyroid gland, hypophysis and suprarenal capsules are discussed, their extirpation and reimplantation and their consequences, injections and feeding of the glands and their active principles, the chemism of their functions, the inner secretion of thymus, spleen, pancreas and kidneys, testicles and ovaries, and the secondary sexual characters dependent upon them. The discussion is based on the historical development of the facts arrived at and of the various theories, giving a most exhaustive exposition of this topic, also with regard to pathology (myxedema, etc.)

In the same manner the following chapters are treated: physiology of the male sexual organs by W. Nagel, of the female sexual organs by H. Sellheim, excretion and evacuation of urine by R. Metzner, urine by O. Weiss, excretion of sebum and sweat by R. Metzner, physiology of the liver by E. Weinland, physiology of digestion and absorption by O. Cohnheim, the work of the digestive glands and its mechanism by I. Pawlow, mechanism of absorption and secretion by E. Overton, histological changes of the glands during activity by R. Metzner. In all these chapters, written by authors who by original researches have become famous in their respective fields, we have to admire the greatest completeness with due and critical consideration of various views, history of research, and an abundance of references including the most recent literature and enabling the reader to pursue his studies still further.

The external appearance, paper, print, the numerous illustrations and plates, and binding are excellent. Nagel's handbook supplies an actual demand. It is the most exhaustive authoritative work representing the present state of physiology, and deserves the widest circulation. (C. Z.)

THE WISCONSIN MEDICAL JOURNAL

FEBRUARY, 1908.

ORIGINAL ARTICLES.

X-RAY INJURIES*.

BY O. H. FOERSTER, M. D.

MILWAUKEE.

Twelve years ago an epoch in medical science was inaugurated when Roentgen communicated his discovery of the x-ray to the scientific world. Hundreds of investigators at once took up the study of this mysterious force, and thousands of published articles and numerous books testify to the zeal with which these researches were prosecuted. Medical men were alert early to the great possibilities of this agent as an aid especially in surgical diagnosis, and assisted the physicist materially in arriving at a better understanding of the nature and action of the ray. To many early workers in the field the x-rays gave promise of being an untold blessing to humanity,—a promise which further experience proved to be speculative, inasmuch as the field for its application has its limitations. Especially was its therapeutic power overrated; at one time vaunted as a cure-all, it is now known to be superior to other older and time-tried methods of treatment in but a limited number of conditions, and its beneficial effects obtainable only under certain conditions of technic. It is not strange that the readiness with which the x-ray can be generated, the apparent ease with which it can be applied, and the almost miraculously beneficial results which were supposed to follow such manipulation of an apparently harmless agent, attracted many physicians to enter untutored the field of radio-diagnosis and therapeusis. The x-rays were applied in any and every condition, with entire disregard of the

*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, Aug. 22, 1907.

pathogenesis, too often also of diagnosis, and with a recklessness, which in the light of our present knowledge is almost inconceivable. The reaction soon set in, and the pendulum took its swing in the opposite direction, much to the advancement of legitimate radiotherapy. It had been learned, often through sad experience, that the x-ray is not the harmless agent it appeared to be, but had power for evil as well as for good. And it is of injuries, direct and indirect, resulting from exposure to the x-ray, to which I shall confine my discussion.

It was observed early in the history of the x-ray that undue exposure of the body to the ray resulted in the development of an inflammation of the skin in the area irradiated. The first instances observed occurred in those engaged in the manufacture and especially in the testing of x-ray tubes. The same condition was later frequently observed in patients exposed to the rays for diagnostic or therapeutic purposes—and especially following radiophotographic work. The x-ray operator himself was also found to develop a peculiar dermatitis—and thus a new clinical entity came into being, the so-called "x-ray burn." Material for its study was not lacking, for the unguarded application of the rays, in a manner which we now know to be dangerous, produced "burns" in numbers. At the present time we are sufficiently informed as to the conditions leading to the development of x-ray burns to avoid producing them in almost all instances.

Following the action on the skin of a variable quantity of the x-ray—variable because apparently influenced by individual idiosyncrasy—a definite train of inflammatory phenomena appear to which the term x-ray burn has been applied. In its milder manifestations the reaction is entirely comparable to that produced by sunlight,—pigmentation or erythema. Hairs in the exposed area are either blanched or loosened. If the effect is greater an actual dermatitis follows, which subsides with slight desquamation and deposition of pigment. If the irritation by the x-ray has been sufficiently great, the inflammatory symptoms are more pronounced and vesiculation may occur, accompanied by sensations of burning or itching. The vesicles may coalesce and rupture, resulting in superficial denudation of greater or less extent, which is promptly repaired as the irritation subsides. Carried beyond this point the inflammatory reaction is intense. The skin is congested, dark red in color, vesicles and bullae appear and rupture, leaving livid, weeping areas upon which a peculiar thin, grayish membrane is formed. Involution usually occurs rapidly in this type of burn, though the process of healing may require several months for its completion. The inflammatory process is deep enough

to include the glandular appendages of the skin, and consequently when healing is completed the skin is perfectly smooth, thin and glossy, and has a red color. In the less severe reactions this red coloration may fade away entirely, and at this time the atrophy becomes most pronounced. Following the more intense reactions a condition of telangiectasis results, which appears to be permanent, for in some cases I have seen the dilatation of the capillaries has remained unaltered for at least three years. The picture resulting is unique: the skin is atrophic to a marked degree, glossy, silky to the touch, and crinkled in fine parallel lines. Immediately beneath this perfectly transparent outer layer the dilated capillaries are seen coursing in all directions. Following a burn of the palm of the hand the horny layer is thicker and translucent, and beneath and apparently extending into it, are seen irregular rectangular or circular telangiectatic formations. Fissures through the unyielding horny layer may occur here and give rise to painful conditions; indeed, I have seen a man who has been compelled to wear gloves soaked in emollients for almost a year, to prevent the formation of fissures and to allow him to continue at his work.

The most distinctive type of burn, however, is that involving the subcutaneous tissue. Here the affected area becomes bluish-red, the skin is swollen and tense, its upper layers are lifted off in large bullae which rupture readily, revealing beneath them a deeply congested surface which rapidly becomes necrotic to a considerable depth. The resulting ulcer when well developed is unique. In general the excavation is crateriform, with sloping sides arranged in a series of shelves. The deepest part of the ulcer probably represents the area over which the rays were more directly focused, for extending outward from this area the inflammatory effects are by degrees less intense. The entire base is composed of a smooth, leathery, moist, gray, brown, or black, tightly adherent tissue, which is apparently lifeless, yet sometimes intensely painful to the touch. It is sharply defined along most of its margin from a less deeply excavated shelf of tissue which is but slightly different in appearance from the central mummified mass. The periphery of the ulcer is a thickened, more or less spongy, protruding edge of inflamed tissue, surrounded by a halo of denuded skin, and skin in all stages of inflammatory change. The ulcer as a rule discharges a copious, thin, clear secretion. Confronted with this unique type of ulcer one is at a loss to determine the line of demarcation between living and dead tissue; one does not know where the process will terminate. The slough gradually in the course of months melts away and granulations take its place, the edges soften and become flat, and scar tissue forms, filled with telangiectases.

The depth reached by these ulcers is variable. A case is reported in which the thigh was excavated to the depth of an inch and a half, surrounding but not affecting the femoral artery. Pusey speaks of an instance in which the burn "included the whole external ear, the right eyelids and eyeball, and the outer table of the skull in the parietal region." I have had under my care an ulcer of the dorsum of the foot in the base of which the tendons lay exposed.

The pain accompanying these deep burns is most distressing, and described as though the ulcer and surrounding region were "on fire." Exposure of the inflamed part to the air, even for a few seconds, usually intensifies the pain decidedly, and is characteristic of the x-ray burn.

Immediately following upon the first knowledge of x-ray burns, investigations were made with the view of shedding light on their nature, the causes which produce them, and how they were to be avoided, and considerable data are now at hand. Early in the history of the x-ray it was believed that the burns were not due to the rays themselves, but to some other agent—as heat or particles of matter from the cathode or bacteria driven into the tissues, and that by overcoming these factors x-ray burns could be prevented. It is now, however, believed that the effects of the x-rays upon tissues are due to the x-rays themselves owing to their actinic properties, which are closely analogous to the actinic properties of light. Regarding the histologic changes produced there is close agreement among different observers in describing peculiar alterations which appear in the cells primarily and are followed by proliferative changes in the interior of the blood-vessels, these latter being, therefore, not the essential cause of x-ray burns.

The question of how the production of x-ray burns may be avoided is, aside from idiosyncrasy, entirely one of care and skill in the application of the ray, and an appreciation of the possibility of injurious effects. Idiosyncrasy to the x-ray undoubtedly exists, for one person will not react to a quantity of x-rays which in another person would be dangerous. Statistics show that in a great majority of x-ray burns these appear not later than ten days after exposure to the rays, and that by waiting for this period before a second exposure is made any idiosyncrasy which might prove troublesome would be detected. The knowledge of possible evil effects of the x-rays has spread even to the laity, and yet in the face of this knowledge there are men giving x-ray exposures for photographic, diagnostic or therapeutic purposes, who exhibit an utter disregard of the consequences. It is perhaps

more often in roentgeno-photographic work, not done by an expert, that these accidents are encountered, for they are usually the result of over-exposures with heavily charged tubes. It is not at all infrequent to hear that in obtaining a radiogram, patients have been exposed at close range for periods varying from twenty to thirty minutes, often on several successive days, or even twice in the same day. Such practice almost inevitably leads to a severe dermatitis or to the most terrible type of burn, and cannot be too severely censured. Recklessness and unfamiliarity with proper technic have done much to bring discredit upon a method which is in skilled hands as safe a procedure as any in medicine.

A peculiar phenomenon is sometimes encountered following apparently complete healing of an x-ray burn, which has been well termed "relapsing," in that as late as several months after the final recovery from a burn, a process in most respects similar to the first burn appears. I have seen such "relapse" occur twice without ascertainable cause during the healing of a deep burn of one foot, with vesicular extension at the periphery far beyond the area originally affected. Shortly thereafter the other foot, in which healing of a less severe ulceration had been completed at least four months previously, was also affected over the entire dorsum by an inflammation characterized by deep-seated vesiculation, again resulting in ulceration at the base of the toes which refused to heal for many weeks.

The treatment of the mild forms of dermatitis due to the x-ray presents no especial difficulties; it is in the severe forms, however, that every ingenuity of therapeutics will be exhausted,—not alone to promote healing, but to give relief from the excruciating pain. For the pain local applications containing cocaine or eucaine are frequently successful; the much praised orthoform in powder or ointment has never been of value in my experience, and has in several instances retarded healing. Exposure of the unprotected surface to the air for but a few moments frequently causes intense pain which may last for hours, consequently care to avoid contact with the air should be exercised during change of dressings. A great variety of powders and combinations of powders and ointment bases have been extolled for the treatment of these burns, but I have never observed that they were other than merely protective, unless they were actively irritant. In some reported cases of x-ray burn involving the connective tissue, it was found necessary to resort to excision of the lesion in order to secure healing. Excision also immediately relieves the pain, and if this cannot be controlled by other means, excision of the slough is indi-

cated. I have found the best results to follow continuous immersion of the affected area in hot normal salt solution, which not alone relieves pain, at least temporarily, but promotes repair. Gauze soaked in the solution is applied to the part during several hours in each day, and frequently changed. When the ulceration is on an extremity, immersion in a dish filled with saline solution as hot as can be comfortably borne is the most effective method. During the intervals between saline applications the lesion is covered with an indifferent ointment, e. g., the 10 per cent. boric acid ointment (U. S. P.) to which cocaine may be added. When granulations fill the ulcerated area, skin grafting can be done; the grafts "take" fully as well as on ordinary granulations. In view of the possibility of "relapse," the scar and surrounding area should for several months be carefully protected against injury.

Considering the pathology of the condition, it is not surprising that a long period of time should be required for the complete restoration of tissue which has been thus profoundly altered by the x-rays, and that the newly formed tissue should later at times be liable to degenerative change. One of the aftereffects, telangiectasis, has been previously considered. In one reported instance it was sufficiently developed to simulate a cirsoid aneurism. Atrophy of the skin in varying degree is frequently observed, and may follow milder forms of burn. It usually appears to improve with time. Small patches of hyperkeratosis may develop in areas of atrophic skin, in all respects comparable to the hyperkeratoses observed in the atrophic skins of old people, even to the development of superficial epitheliomata in their irritated bases. It is now definitely known that carcinoma may originate in the site of an old burn, and it appears to develop with especial predilection in the chronic dermatitis of the hands in x-ray operators, as the result of frequently repeated, small doses of the x-ray continued over long periods of time. Repeated amputation has in some instances failed to stop the advance of malignant change, and several deaths have occurred. It has quite recently been learned that men who have done extensive x-ray work for several years (more than three) may be rendered sterile. This sterility has been produced without the slightest subjective or objective sign denoting its insidious development, and without evidence of deterioration of sexual activity. One such case has come to my notice. A number of men, who had been engaged in the work for a shorter time and had been careful to avoid direct exposure to the active tube, showed varying states of oligonecrospermia. The prognosis in these cases of sterility is still in

abeyance, and must remain so for a long time until evidence can be collected as to the recuperative power of these organs. It is interesting to note that many instances are known of women who have undergone prolonged treatment by the x-ray with exposures directed to the abdominal and pelvic organs, and who have later borne children. Pusey has observed a number of such. It is therefore, incumbent upon the operator of x-ray tubes to protect himself by working behind a screen impervious to the rays, and to expose himself only when absolutely necessary for examination of the tube, and then only for the shortest possible time. The patient should also be protected except in the area to be exposed to the ray.

In dwelling on these evil accompaniments to the use of the x-ray, I have tried to plead for the rational use, and to protest against the abuse of a powerful therapeutic agent. I have tried to avoid giving an exaggerated impression of evil, simply pointing out the possible dangers, and again wish to emphasize that the use of the x-ray should be confined to those who by special training are competent to employ it with judgment.

Discussion.

PROF. CHARLES R. BARDEEN, Madison:—I have enjoyed listening to this paper very much. These x-rays, like the rays of radium and the short ultra-violet rays, all seem to have an effect on physiological activity, which in some way is comparable to the effect of drugs. So in the use of any of these physical agents which have recently been introduced into medical practice, it is certainly necessary to preserve the same caution, and attempt to get as rational a basis for their use as is the case in the use of various drugs. The x-rays and the rays from radium and the Finsen rays, seem to affect chiefly the physiological activities which have to do with the growth and development and repair of tissues. Therefore, their use in case of cancer or their use to stimulate growth and repair.

Some of the tissues are evidently very much more susceptible than others. The skin is one of the organs most susceptible. For instance, it was found in the early days that if a rabbit's ear is exposed to the x-rays the skin will be burnt on each side of the ear, both on the side from which the rays are coming, and on the opposite side, while the intervening tissues remain apparently healthy.

Next to the skin the most susceptible tissues seem to be the lymphoid tissues, the lymphatic glands and the lymphoid apparatus in organs like the spleen. Probably bone marrow would be very susceptible if not protected by the calcium salts in the bone. This has brought the use of the x-rays into play in leukemias, and has also brought to light its great dangers where the lymphatic apparatus is exposed, because severe pathological lesions may occur. The sex glands are also sensitive to the rays, the formation of sex cells being inhibited by sufficient exposure.

I may cite an instance to show how profound a modification of the growth-governing activities takes place under the exposure of the rays. If spermatozoa of a frog or toad are exposed for 15 minutes to the rays and then these exposed spermatozoa are used to fertilize eggs, the eggs will start out to develop normally, if the exposure has not been too long, and then at the end of about a week, instead of normal tadpoles, one finds all sorts of abnormalities, and among these are cancerous-like growths of the skin. This shows that although the size of the spermatozoon in relation to the size of the egg, is exceedingly small, the egg being many thousands of times greater than the spermatozoon, yet the nuclear substance in the spermatozoon is so altered by the x-rays that it alters all the growth-governing activities in the egg, and as the egg gradually develops into the tadpole, these abnormalities come to life. This indicates how dangerous the use of the x-rays may be, unless one is careful and knows exactly what he is doing with them.

DR. GEORGE SAUNDERS, of Superior:—I have used the x-rays to quite an extent, but have not had any x-ray burns. I was very glad to hear this paper, as it emphasized the danger to be considered in the employment of this very valuable therapeutic agent. I have used it in a great many cases in the last five years, and I have never had a burn in my own experience. I perhaps have been a little too timid with it. I have seen a great many good results from its employment in nearly all kinds of skin diseases, and several kinds of epitheliomata—I won't say all kinds of epitheliomata, but a number of mild cases will react nicely to the action of the rays.

The enlarged cervical glands react very nicely, as a rule, to the action of the x-rays, and in pulmonary tuberculosis in the very incipient stage, I think that I have had a few very good results; but after the cases have progressed to quite an extent the rays ought not to be used. I have used the rays in cases where the disease was pretty well advanced, and found that the patient became intoxicated, so to speak, with his own poison, and went on from bad to worse and went down very rapidly; and within three or four years I have entirely abandoned the use of the rays in advanced pulmonary tuberculosis. But in the very incipient stage I have found very good results; but if I see the least sign of tanning of the skin, I invariably stop the treatment for a week or two or three weeks. I never prolong the time of treatment beyond fifteen minutes at any one time; and in the last year or two I am getting a little afraid of that time. The experience I have gained, I think, by the mild treatment is better than I obtained in my earlier use of the x-rays, because I did not at that time realize the danger. During the first two or three years of my employment of the rays I found my fingernails beginning to get quite brittle, and breaking off.

DR. FOERSTER:—I want to emphasize again that the x-ray is a dangerous agent if not properly used. Proper protection of operator and patient does away with all danger. I have had only one x-ray burn occur, and that I wanted to produce. All the rest that I have seen, and I have seen quite a number, have been produced either when the x-ray was used for therapeutic purposes, as for ordinary acne, mild eczemas (which would have disappeared under ordinary treatment), for psoriasis and things of that sort, or in securing x-ray photographs. You always run the danger, unless you are careful, of producing an untoward and unwished-for result.

Leukemia and Hodgkin's disease, and other conditions of this nature, are proper subjects for attack by the x-ray, but it has lately been found from experiments in metabolism that there is an ever-present danger. A large number of toxins are liberated in the breaking down of nucleoproteins, and if the kidneys are deficient you may overwhelm the patient with a poison, and produce profound disturbance.

The possession of an x-ray machine or an x-ray outfit seems to induce the belief in a great many men that they are thereby qualified as dermatologists, and that the diagnosis of cutaneous diseases may be disregarded. I have seen several cases of ordinary tubercular syphiloderm of the face, regarded as lupus, which had been x-rayed to the point of producing permanent scars, covering in one case as much as one-half of the face, in women, which were simply syphilitic processes, readily recognized, and which disappeared in three weeks under the use of inunctions of mercury.

ANESTHESIA PARALYSIS.*

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By anesthesia paralysis is meant that form of paralysis which follows and is dependent upon the administration of a general anesthetic. Büdinger[1], one of the first to describe this condition, gave to it the name of narcosis paralysis, and believed it to be peculiar to chloroform narcosis. He recognized two varieties, a peripheral and a central; the former, involving mostly the muscles supplied by the brachial plexus, he attributed to compression of the cords of the brachial plexus between the clavicle and the first rib. He was able to show that this compression is brought about by displacing the arm upwards and backwards over the head. The mechanism of this compression, as described by Büdinger, shows the clavicle first drawn upwards, bringing it in close contact with the first rib at the point where the trunks of the brachial plexus cross the first rib. In extreme extension of the arms, which in this position also brings about a rotation of the clavicle upon its transverse axis, causing the sharp, posterior-superior border to become the inferior-posterior, thus further limiting the

*Read before the Fox River Valley Medical Society, Green Bay, Jan. 21, 1908.

1. Arch. f. Klin. Chir., Bd. 47.

space between the two bones, compressing all of the cords, but most the upper and posterior.

Büdinger, by abducting the arm to a right angle with the body, could cause a considerable degree of compression in thin persons, in whom the cords were not protected by the usual deposit of fat.

He also noted that in certain cases a peculiar formation of the thorax and clavicle would permit of a greater degree of compression than ordinarily occurs. The position of the head was also found to change the relation of the clavicle to the first rib. When the head was drawn to the opposite side and the nerve roots stretched, the brachial cords did not escape by sliding from underneath the clavicle. On the other hand, when the head was drawn toward the side upon which the arm was abducted, the nerves were seen to slip easily outwards and escape compression.

Braun[1], one of the earlier writers upon this subject, considers that anesthesia paralysis of the upper extremity may be due to compression of the nerves at a number of different places in their course. He agrees with Noone, who believes that the commonest cause of the paralysis is an injury to the fifth and sixth cervical nerves as they leave the spinal column. This is brought about by compression of the nerves between the clavicle and the transverse processes of the vertebra, as a result of displacing the arms over the head during the administration of an anesthetic.

Similar paralyses have been noted in the newborn in breech presentations, when the arms become displaced upwards.

Direct pressure of the head of the humerus upon the nerve trunks in the axilla may be the cause of an anesthesia paralysis. By drawing the arm upwards over the head, the radial pulse may be completely suppressed; the median nerve is at the same time submitted to supreme tension as it passes over the head of the humerus. By bending the elbow and rotating the forearm outwards the ulnar nerve is similarly affected.

Pressure upon the individual nerve trunk by the extremity coming in contact with the sharp edge of the operating table or by compression of the nerve by permitting the patient to rest upon the arm during a prolonged operation, may be the cause for peripheral paralysis. These are identical with the so-called "sleeping palsies" of the upper extremity, and the obstetrical paralysis from pressure upon the lumbo-sacral cord by the descending head.

In operations in which the patient must rest upon the side, or

1. Deutsche Med. Woch., 1894.

those in which a latero-prone position is to be maintained, particularly when the duration of the operation is longer than usual, compression of the nerve trunks of the upper extremity is most likely to occur. Of the individual nerves compressed in this manner, the circumflex and the radial are subject to the greatest risk. When the Trendelenburg position is employed, the risk of a narcosis paralysis is greatly enhanced. In this position, with the patient's weight hanging from the flexed knees, which are brought in contact with the sharp edge of the operating table, and there fastened, injury to the external popliteal nerves as they pass forward from behind the condyles of the femur may cause paralysis of the muscles supplied by these nerves. In one of the author's cases a bilateral peroneal paralysis, followed a double salpingectomy, in which the Trendelenburg position was employed. This completely disabled the patient for six months. Restoration of function of the paralyzed muscles was not complete until the end of a year.

Another danger of the Trendelenburg position is the tendency of the arms to be displaced over the head and hang downwards over the end of the table, thus favoring compression of the trunks of the brachial plexus or of the cervical nerves, after the manner described by Büdinger, Noone and Bruns. Complete paralysis of all of the nerves of both arms has been reported by Bernhart[1] in a case in which the Trendelenburg position, with displacement of the arms over the head, was maintained during an operation that lasted one and one-half hours. A similar case was observed by the author in the practice of a colleague. The paralysis in this case disappeared completely within one year.

As a result of direct pressure upon the nerve trunk by the hands of the anesthetist we may also have paralysis or paresis of the facial nerve.

Flateau[2] mentions a case of this kind. In the author's practice a bilateral facial paralysis that lasted six weeks followed pressure upon the facial made by the anesthetist during ether narcosis in an operation for recurrent appendicitis.

Traction upon the nerves in the axilla, made while the arm is abducted, in operations upon the breast, axilla and shoulder joint, have caused paralysis that can properly be classified with narcosis paralysis. In these cases it is essential to distinguish between lesions

1. Neurologisches Centralbl., 1891.
2. Centralbl. f. d. Grenzgeb. d. Med. u. Chir., Bd. 40.

of the nerves caused by traction and those due to injury of the nerves within the field of operation.

Another factor in the causation of peripheral narcosis paralysis, considered by some to be of importance, is the toxic action of the anesthetic upon the peripheral nerve trunks. Cassé[1] holds that while local injury to the nerves probably plays the most important rôle in the causation of these paralyses, yet the lowered resistance of the nerves to trauma, which predisposes to paralysis, is occasioned by the toxic influence of the anesthetic. This follows chloroform narcosis more often than ether. In those cases in which the pressure has been insignificant and the duration of the operation extremely short, the chief etiologic factor is to be found in the local neuritis resulting from the toxic effect of the anesthetic. A further evidence of the importance of this element he finds in those cases in which the paralysis develops some days or weeks after the administration of an anesthetic. This view is also taken by Mally.

The pathologic basis of these narcosis paralyses varies greatly in degree of severity. In mild cases in which a mere circulatory change in the nerve trunk results from compression, the disability soon passes away. In others, in which destruction of nerve tissue results from trauma; or where marked degeneration resulting from the toxic action of the drug seriously impairs the vitality of the nerve fibers. a considerable time may be required to effect a repair. On the whole, the prognosis is favorable, recovery being the rule. In those cases in which the lower nerves of the plexus are involved, giving the Klumpke type of paralysis, the prognosis is more favorable than when the upper nerves, with the associated Erb-Duchenne type, results. This is due to the more severe lesion that generally exists from compression of the upper nerves. With the latter we may have an associated lesion of the cervical sympathetic, evidenced by myosis, retraction of the bulb and flattening of the cheek, as has been observed by Krumm.[2]

Central narcosis paralysis is so rare as to be of slight importance. As to the cause, we have little direct evidence that is of value. Two hypotheses are to be considered: First, that the lesion is due to ischemic softening, following a hemorrhage; second, that there is a primary degeneration, the result of the toxic action of the anesthetic upon the cerebral cortex. When hemorrhage is the cause of the paralysis, we must assume an existing sclerosis of the vessels, which give way usually during the stage of excitation of an ether narcosis.

1. Bull. de l'Acad. Royal de Belgique, 1898.
2. Abst., Annals of Surg., Vol. 25.

Büdinger reports a case of paralysis of the left arm that followed an exploratory operation for gastric carcinoma. The patient died seven weeks after the operation. The autopsy revealed a clot upon the center, corresponding to the paralyzed extremity. Where softening of the cortex is found without the presence of a clot, the paralysis may be considered as the result of a degeneration of the cortical cells, identical to that which occurs in other organs, as the liver and kidney, etc., from the administration of an anesthetic, particularly chloroform. Büdinger believes this to be a true coagulation necrosis, similar to that found in the heart muscles and parenchymatous organs, dependent upon the toxic effects of the drug.

Embolus occurring during operation for malignant disease of the breast was the cause of a hemiplegia in a case reported by Senger.

It goes without saying that the most important element in the treatment of narcosis paralysis is the prevention. In all cases where due consideration of the possibility of these paralyses is kept in mind, local pressure paralysis may be avoided. Great care should be exercised in securing a proper position of the arms at the sides of the patient during every operation. Where the lateral or latero-prone position is desirable, as in operations upon the kidney, sacrum or thorax, the peripheral nerves should be protected by adequate padding of the operating table, and by supporting the head by a pillow. When the Trendelenburg position is employed, the same care should be maintained in protecting the lower extremities from pressing upon the sharp edge of the elevated end of the table. In no cases should the arm or leg be permitted to hang over the sides of the table.

Central paralysis can not be prevented. The danger can in some measure be averted by limiting the quantity of anesthetic administered, and by controlling the stage of excitation in ether narcosis by administering a preliminary hypodermic of morphine.

THE ADMINISTRATION OF OXYGEN AFTER GENERAL ANESTHESIA.*

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We are all familiar with the fact that the administration of a general anesthetic is often followed by nausea and vomiting. This condition may be of short duration, but frequently it is prolonged and

*Read before the Milwaukee Medical Society, Dec. 10, 1907.

is the cause of great discomfort to the patient. Cases in which nausea and vomiting have persisted for several days are not infrequent and are sometimes the cause of considerable anxiety on the part of the attending surgeon. Therefore any agent which tends to counteract or prevent the disagreeable effects following general anesthesia will add materially to the patient's comfort and hasten convalescence.

Different means have been tried to overcome or lessen post-anesthetic nausea, but nothing generally effective has been found. The giving of certain drugs before and after the administration of the anesthetic, inhalations of vinegar, and the washing of the stomach at the close of the anesthetic, are the usual measures employed. Some of these methods I have tried but the results have not been satisfactory. I have seen no benefit from lavage and have known patients in whom it was used to be very sick from the anesthetic.

Opinions differ as to the cause of post-anesthetic nausea and vomiting. Some hold that it is due to direct irritation of the vomiting center by the anesthetic, while others believe that the anesthetic is secreted into the stomach and acts as a direct irritant. The condition of the patient at the time of the operation, the character of the operation, and the amount of anesthetic given are factors to be considered.

The administration of oxygen for the relief of nausea and vomiting following general anesthesia is mentioned in some text books, but little is said on the subject and it is not in general use. My attention was first called to this subject by an article, written by Dr. W. T. Wootton of Hot Springs, Ark., that appeared in the *Journal A. M. A.*, April 27, 1907. The writer calls attention to this means of preventing post-operative nausea and describes his method of administration. He has used it after various operations over a period of two years with much success. The vomiting he attributes to a direct irritation of the vomiting center in the medulla. As regards ether he believes that the oxygen prevents vomiting by oxidizing the ether and converting it into carbon dioxide and water—neither one of which will produce vomiting. He offers no definite explanation as to the end products of the oxidation of chloroform.

I determined to give this method a trial and have recently used it in forty cases. Some of these anesthetics have been for minor operations, but most of them have been for major cases including appendectomy, hysterectomy, cholecystostomy, herniotomy, salpingectomy, nephrectomy, etc. There were thirteen males and twenty-

seven females varying in age from four to sixty-five years. The duration of the anesthetic was from fifteen minutes to one hour and fifty minutes. In general I have followed the method of Dr. Wootton. Instead of the glass tip which he inserts into the nostril I have used, in most of the cases, a small metallic cone which is held over the nose and about one-half inch from the face. I do not think it advisable to stop the anesthetic until the dressings are ready to be applied. In this way patients can be returned to bed before they become restless. The moving of a patient who is only partially under the anesthetic is, I think, a possible cause of starting vomiting. The administration of oxygen was commenced as soon as the anesthetic was stopped and was continued for half an hour when chloroform was used. Those to whom ether was given received the oxygen for one hour. It is important that the oxygen be given immediately after stopping the anesthetic and before the reflexes have returned.

Of these forty cases four were given chloroform, five chloroform followed by ether, and thirty-one ether. In giving ether I use an Esmarch mask which is covered with six or eight thicknesses of gauze. As soon as the patient is accustomed to the ether a towel is placed over the mask in order to exclude the air. The ether is given by the drop method. Some of these cases were given a hypodermic of morphine and atropine or morphine and hyoscine one hour before the anesthetic was started. This tends to check the secretion of mucus, shortens the time required to get the patient under the anesthetic, and lessens the amount of the anesthetic.

The results have been as follows: Those receiving chloroform did not vomit at all, nor was nausea present. One of the patients was given a bowl of soup within two hours after removal from the table but vomiting did not occur. Of the cases (36) in which chloroform and ether or ether alone was given the results were also good: in eighteen there was no nausea or vomiting; in nine there was a slight expulsion of clear mucus while the patient was being removed from the operating room or soon after returning to bed. These cases should really be classified with those that did not vomit, as it is the vomiting which occurs after the return of consciousness which concerns us. So considered there were twenty-seven cases in which nausea and vomiting did not occur. Eight patients vomited two or more times a small quantity of clear mucus; but the patients were not distressed nor was there any nausea. The vomitus was clear and was not stained with bile as so frequently happens. This fact is important and I think shows that reversed peristalsis did not occur. One patient

vomited frequently and was nauseated for six or eight hours following the operation. However, in this case—a child of eight years—vomiting occurred before he was completely anesthetized and also several times during the operation. This being the case it is not surprising that the child was sick for some hours following the operation. Of the forty cases this is the only one in which nausea was really present. In all of these cases it was noticed that the patients regained consciousness more quickly than usual.

There were three cases in which vomiting did not occur that are worthy of mention. These patients had previously taken a general anesthetic and had been sick afterwards, yet they complained of no nausea at all when oxygen was given. One of the cases was a man fifty-eight years of age who said, upon regaining consciousness, that he could not taste the ether although he was not aware that oxygen had been given. He told me that he had taken ether twice before and on both occasions he had been sick. I think that the absence of nausea at the last operation can be attributed to the oxygen.

While these cases are too few in number to furnish any definite proof of the benefit of oxygen in post-operative nausea, yet I think that they do show that the method is of value.

In conclusion I would say that any agent which tends to prevent post-operative nausea is worthy of a thorough trial. Oxygen will do this to a certain extent. It is harmless and is easily administered. Patients to whom it is given soon regain consciousness. As a preventative of post-operative nausea it is of more value than any other measure in general use.

SOME PROBLEMS IN SURGICAL DRAINAGE.*

BY CHESTER M. ECHOLS, M. D.

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In this brief paper no attempt will be made to discuss every phase of surgical drainage. While we are in a position to point out some of the problems, we cannot answer all of them, for in some particulars the final word is yet to be said. The *how* and the *when* of drainage are of sufficient importance both to patient and operator to warrant an occasional review of our knowledge of the subject up to date.

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*Read before the Fox River Valley Medical Society, Oshkosh, Oct. 15, 1907.

It is noteworthy that in no department of surgical work has progress been slower or practices more empirical than in the matter of drainage. Our knowledge of the subject has been painfully slow in growth, costly to life, and is not even yet crystallized into anything like universally accepted teachings or uniform practices. No Moses has ever succeeded in leading the profession out of the wilderness of empiricism. On the contrary, every dictum or device for drainage has either failed of general acceptance, or has fallen short of the expectations of its promulgator.

I do not mean to say that surgeons are groping in the dark to the same extent that they were a generation ago. Every surgeon of large experience knows, or thinks he knows, just how and when to drain. He has definite ideas, born of experience, as to what procedure is best in any given case where the question of drainage arises; and, although his method may differ from that of another surgeon of equal ability, it is at any rate one that his own experience has taught him is safest for the patient.

Before speaking of drainage of the various body cavities, it may be well to call attention to the question of whether or not we should drain after such operations as breast amputations, excision of large goitres, extensive dissections of tuberculous glands, and the like. In such cases the problem is not so much how to prevent post-operative suppuration as it is to secure prompt healing with the least possible disturbance. Some operators who object to drainage depend upon the pressure of the dressings to prevent the accumulation of the so-called wound secretion beneath the replaced flaps. But as the tendency towards such accumulation is very considerable, thereby inviting infection and delayed union, I consider this a legitimate field for temporary drainage. The drain should be small, of some material other than gauze, should be placed preferably at the most dependent part—through a stab wound if necessary,—and left *in situ* only a day or two. It should be covered with sufficient sterile gauze to absorb all secretion.

Among the body cavities that we are called upon to drain, the peritoneal cavity easily takes first rank in point of frequency; however, I shall first allude briefly to two others, namely, the thoracic, and the ventricles of the brain.

HYDROCEPHALUS, so long a *noli me tangĕre* in surgery, has been treated successfully by surgical means in a sufficient number of cases to warrant a brief reference to the problem of draining the general ventricular cavity of the brain. If this cavity communicates freely

with the sub-arachnoidean space of the spinal cord, then the simplest and safest way of draining it is by means of Quincke's lumbar puncture, repeated as often as necessary. Unfortunately, the foramen of Majendie is often closed in patients with hydrocephalus, especially the congenital variety, so that drainage must be effected, if at all, by direct puncture of the lateral ventricles. Keen's plan of continuous drainage of the ventricles through a small opening in scalp and skull has never met with success and probably never will, for, of all the body cavities, those of the brain are perhaps the least resistant to infection. Thus far, all attempts to empty them by continuous drainage communicating with the scalp have failed. Repeated aspiration with a slender needle, drawing off an ounce or two of fluid at a time, has so far given better results than any other method. Continuous drainage of the lateral ventricles into the soft tissues of the neck by means of a buried drain consisting of strands of silk-worm gut or other similar material, is yet in the experimental stage, and its possibilities have not yet been fully tested.

PLEURAL CAVITY. In discussing the problems connected with pleural drainage it should be borne in mind that, while the pleura is far more resistant to infection than the meninges or the brain ventricles, it is also vastly less tolerant than the peritoneum. There is no migratory omentum to answer hurry calls to wall off pus or surround a foreign body. Its local protective forces are limited chiefly to its power to produce quickly a fibrinous exudate which glues parietal to visceral layer, and its capacity for mural hypertrophy and cellular infiltration.

Since empyema so often has for its antecedent condition a pleural effusion, the problem of prophylaxis should not be overlooked. Delafield has collected and reported 200 cases of pleural effusion, 182 of which were entirely cured by aspiration. Rib resections would doubtless be less frequent if such effusions were aspirated early and often enough.

Drainage for empyema should aim to evacuate the pus and restore *ad integrum* the partially collapsed lung. The latter purpose is too often overlooked. After operations for empyema of long standing, complete restitution of the collapsed lung is impossible owing to the enormous thickening of the visceral pleura. This fact points to the importance of early drainage while the fluid is still sero-purulent and before the lung is irreparably damaged. In my opinion there is too much rib-resection done. If drainage were instituted early, before there is much thickening of the pleura, the less mutilating operation

of drainage between the ribs would often be sufficient and would do less damage.

Lung surgery in glass cabinets of rarefied air will never be widely practiced for obvious reasons. After drainage is instituted, however, expansion of the lung may be aided by some of the devices (which we shall not here describe) for producing negative pressure in the drained cavity.

ABDOMINAL DRAINAGE. By way of introduction to the problems connected with abdominal drainage, it may be profitable to take a cursory retrospect of the history of drainage in general and peritoneal drainage in particular.

In the writings of Hippocrates mention is made of the use of drainage tubes for the treatment of pleural accumulations of serum or pus. Celsus, Galen, and others of the early medical writers use them for the treatment of ascites. But up to the middle of last century abdominal drainage seems to have been limited to the evacuation of free ascitic fluid. After the beginning of what we may call the era of abdominal surgery, and before the discoveries of Lister and Pasteur had produced any practical effect upon surgical technic, the mortality following abdominal section remained so terrific as to be almost prohibitive. The causes of death after celiotomy were at that time not generally understood, although we now know that most of the deaths were due to generalized septic peritonitis. It was observed by many laparotomists that after their patients died the abdomen was filled with a blood-stained, sero-purulent fluid. By a *post-hoc-ergo-propter-hoc* form of reasoning, the cause of death came to be ascribed to the presence and absorption of what Keith in his now historic saying, characterized as "the red serum, that enemy of the ovariotomist." This epigrammatic expression may be said to represent the view of surgeons fifty to sixty years ago. Proceeding upon the false hypothesis that death was due to the presence of decomposition of this sero-sanguineous fluid it became the chief concern of the laparotomist to relieve the patient of this so-called "secretion." Having observed that the fluid was prone to accumulate in the cul-de-sac, Peaslee in 1854 instituted the practice of post-operative pelvic lavage through an incision in the vaginal vault. The introduction of soft rubber tubes by Chaissaignac in the late 50's, and of glass tubes a few years later by Koberle are representative of the efforts of surgeons of that period to get rid of the fatal "red serum" by secondary drainage. In order to understand how such a Will-o'-the-wisp could be pursued for a quarter of a century with little, if any, improvement in the mortality

rate, we must bear in mind that in those days laparotomies were relatively few, and microscope and laboratory constituted no essential part of the surgeon's equipment. Surgical theories were not so quickly disproved as they are in our own time when a third of our adult population has been on the operating table.

Thus far we have considered only secondary or post-operative drainage,—attempts to evacuate the fluid after peritonitis had begun In the pre-antiseptic days, such attempts, as we can now readily under- for pus, or attracts exudates as a subterranean tile-pipe attracts water stand, were doomed to failure.

Opposed to this is the so-called prophylactic or primary drainage, —drainage inserted at the time of operation for the purpose of preventing the occurrence of generalized peritonitis. (No reference is meant to the drainage of circumscribed abscesses). Prophylactic, primary drainage was at the height of its popularity in the 70's and 80's and has to a certain extent, continued in vogue up to the present day. During that period, most of the leading surgeons of this country and Europe employed drainage as a routine measure after nearly all laparotomies. Of course a large quantity of serum would be discharged from the wound during the first 24 hours, saturating the dressings, and this fact often furnished the argument that the drainage was needed, when in reality, the profuse secretion was caused by the presence of the drain. Tait's famous dictum "When in doubt, drain," was pushed to its logical limits. All sorts of materials and devices were used,—hard and soft rubber tubes, glass and metal tubes of various shapes and sizes, wicks of catgut strands, and numerous other materials. No method or device, however, proved ideal, and the enthusiasts were disappointed. To be sure, the mortality rate became less than in the earlier days, but this was largely due to the growing use of antiseptics rather than to the practice of routine drainage.

To trace the controversies up to the present time would consume more space than this paper contemplates. Long ago it became apparent that no device or method for peritoneal drainage could accomplish all that its originator hoped or claimed for it. Fenestrated tubular drains became plugged up and ceased to drain. Flexible drains became displaced. Inflexible ones might cause fecal fistulae. Gauze will not drain pus or blood; its meshes soon fill with fibrin and its capillarity is lost. Finally, all peritoneal drains soon become encapsulated and shut off from all communication with the general cavity. Moreover, all drainage tracts become infected, so that the drain may be a source of danger as well as a safety valve. With

increasing appreciation of these facts, and the growing conviction that proper attention to other details of technic, such as strict asepsis and hemostasis, avoidance of insults to the intestines, careful packing off of pus collections and the like will obviate the necessity for promiscuous drainage, there has been a growing tendency among surgeons during the past two decades to employ peritoneal drainage less and less. The impunity with which we now close abdominal incisions without drainage after removing gangrenous appendices, pus tubes, and ovarian cysts would have made Marion Sim's or Lawson Tait's hair stand. As illustrating this growing disposition on the part of surgeons to omit drainage, I wish to quote from two prominent surgeons,—one German and one American. Olshausen who, it will be remembered, was once an ardent advocate of primary drainage, reported four years ago (Zeitschrift Geb. und Gyn. LXVIII, Heft 2) that in his last 1,555 laparotomies he had not used drainage in any case, and he does not consider his mortality rate any higher than it would have been had he drained more freely. He quotes Zweifel as having operated upon 140 cases of pus tubes without draining in a single case and with only one death in the entire series. Hunter Robb of Cleveland, whose original research on the subject of drainage should give his opinions considerable weight, reports 222 consecutive, unselected laparotomies, 65 of which were pus cases. He drained only in a single instance and did not lose a patient. While these two reports may represent radical views, they can be taken as indicative of the present-day tendency among surgeons to avoid the necessity for drainage, and the disposition to close up abdominal incisions under circumstances which to the older surgeons would have seemed homicidal.

That surgeons of large experience have been using less and less drainage is attributable, it seems to me, to four causes:

1. Improved surgical technic.

2. A growing recognition of the fact that the peritoneum when closed primarily after proper toilette, can take care of certain low-grade infections, cyst contents, and the like, without resulting generalized peritonitis.

3. Fuller recognition of the unpleasant consequences and actual dangers of drainage.

4. Increasing knowledge of the limitations of peritoneal drainage; that is, an understanding of what drainage does not do.

(1). Improved surgical technic has doubtless been the most potent influence in lessening the necessity for and the practice of

abdominal drainage. Careful preparation of the patient, rigid asepsis and hemostasis, gloved hands, rapid operating, avoidance of handling or exposure of the viscera, and careful isolation of pus or infected areas have all contributed to make drainage unnecessary. Surgeons who habitually use much drainage probably need it. During our civil-war,—the era of "wet rag surgery,"—all silk ligatures were left long and projecting out through the wound to be removed as soon as sloughing occurred. This would be folly now, but was found to be good practice then. The occasional operator, as Moore puts it, needs drainage more than the surgeon who operates daily.

(2.) Illustrating the second point,—that the undrained peritoneum is more capable of taking care of itself than was once supposed,—may be mentioned again the 140 cases of pus tubes operated upon by Zweifel without drainage and with only one death. It is well known that gonococci in sub-acute or chronic pyosalpinx are either dead or of low virulence, so that the accidental rupture of such a tube during an operation does not necessarily call for drainage. Prof. Kuestner, of the Breslau clinic, says that even if the genococci appear recent, he closes the peritoneum and has never yet experienced any evil results therefrom. The spilling of cyst contents into the abdomen no longer calls imperatively for drainage. Excision of a gangrenous appendix only exceptionally demands it. When intestinal contents escape through gunshot wounds, it is usually safe to close the abdomen without drainage. I reported some time ago the recovery without drainage, of a patient shot through the abdomen 17 hours before operation, and whose abdominal cavity was full of intestinal contents, blood, and fibrin. These few illustrations are cited at random as indicating where it is coming to be considered safe not to drain.

(4). Limitations of Peritoneal Drainage. A growing comprehension of the limitations of peritoneal drainage has been one cause of its waning popularity. That these limitations are very imperfectly appreciated or understood by the rank and file of persons doing surgery is abundantly evidenced by the character of the discussions one hears upon the subject. A barrel of cider can be drained by making a hole in the lowest part. So can a pleural cavity full of pus. But any such conception of the peritoneal cavity overlooks two highly important modifying conditions; namely, (a) the active motility of certain abdominal viscera, especially the intestines and omentum, and (b) the reaction of the peritoneum in the presence of a foreign body in the form of a drain. Everyone who has done many autopsies has noticed that if intestines are thrown into an ordinary sink basin and water

turned on them, they will promptly plug up the outlet. This happens with intestines that are passive and lifeless. Much more potent are the living and highly motile viscera in modifying the action of the physical laws of gravitation and capillarity during attempts at drainage.

The experiments of von Ott as early as 1878 should have given clinicians a valuable hint as to the limitations of peritoneal drainage, had his deductions been studied even with indifferent care. He found, for example, that through-and through rubber drainage tubes inserted into the abdomen of rabbits became quickly encapsulated by adhesions, so that fluid ceased to be discharged through the tube from the general peritoneal cavity in less than 24 hours. Von Ott's results have since been confirmed, elaborated, and added to by numerous investigators, and notably in recent years by Clark and Yates, in two valuable contributions to the literature of peritoneal drainage. These observers show by abundant and convincing experimental evidence that long-continued drainage of the peritoneal cavity is a physical and physiological impossibility (except in the case of ascites, which is no longer treated by continuous drainage). The peritoneum abhors a foreign body as the old philosophers used to say nature abhors a vacuum. A peritoneal drain, no matter of what material or shape, is a foreign body, and as such, it is a sufficient irritant to cause its early encapsulation by a wall of abdominal viscera cemented by fibrin. The inviting holes that are cut in the sides of the drainage tube quickly become plugged. So do the meshes of gauze drains, thus showing that the once favorite analogy of peritoneal capillary drainage to the emptying of a bowl of water by means of gauze wicks is a delusion. In dogs peritoneal drains become completely encapsulated in 6 hours, thus shutting off the drainage tract from the general cavity. The discharge that occurs after such encapsulation comes only from the drainage tract itself. The idea that a drainage tube has any mysterious affinity from the soil, should be dispelled by the post-mortem findings, by Clark and others, of encapsulated accumulations of infected matter within one-half centimeter of the drainage tract.

The clinical corollaries deducible from the mass of experimental evidence now available would seem too obvious for argument, but of course they must be interpreted in the light of practical experience. Happily, clinical practice coincides more and more with laboratory deductions, as witnessed by the tendency to use drainage less. In the past it has been a common error for surgeons to expect drainage to accomplish too much. For example, an operator will pack off a pus

collection with gauze to protect the surrounding structures because he knows that pus will not permeate the gauze. Then perhaps he will insert a gauze drain and expect it to draw off the very same pus by capillarity. The one thing we may expect a properly inserted drain to accomplish (aside from hemostasis or drainage of abscesses) is this:—it will cause the encapsulation and isolation of a dangerous or suspicious area within a period varying from a few hours to a day or two. The "dangerous" area is thus rendered truly extra-peritoneal and therefore relatively harmless. Just what constitutes a dangerous area, requiring isolation by means of drainage, will always to a certain extent remain a matter of individual judgment, and herein lies a bone of contention in argument and a cause of discrepancies in practice. I shall not attempt to enumerate the various intra-abdominal conditions supposed to require isolation by drainage, but, as has already been stated, the indications for drainage have been diminishing with increased experience.

The rôle of gravity and posture in abdominal drainage is still a subject of controversy. In cases of pre-formed abscesses or circumscribed accumulations of infected material where gravity can act unimpeded, it may be important to make the opening at the lowest available point and to encourage evacuation of the contents by suitable postural methods. But under other conditions a peritoneal drain early becomes shut off by a wall of adhesions from all communication with the general cavity. This physical and physiological fact must necessarily limit the usefulness of all postural methods and schemes for draining the abdominal cavity by the aid of gravity.,

In conclusion I wish to mention one or two minor details regarding drainage material and its use. If unprotected gauze is used for abdominal tamponade, its removal within 3 or 4 days is not only painful, but may be actually dangerous owing to the filling of its meshes with a strong network of fibrin. Many fecal fistulae have been produced in this way. After a period of five to seven or eight days this fibrin undergoes solution or digestion, possibly as the result of the action of a ferment produced by new granulations, so that the removal of the gauze becomes easy.

Cigarette drains are at present in great favor. They have greater firmness than gauze and less rigidity than tubes. Their removal is easy and comparatively painless. To prevent such a drain from being displaced by peristalsis, it is well to have the free gauze project from the end to be inserted, so that adhesions will anchor it in the desired position.

I have found that old rubber gloves make excellent drains. The tips of the fingers can be cut off and the glove filled with any desired number of gauze strips which are allowed to project slightly from the finger ends. They are plentiful around most hospitals, and they can be sterilized by boiling while rubber protective tissue cannot.

A CASE OF VOMITING WITH ACETONURIA AND FATTY METAMORPHOSIS OF THE LIVER.*

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The case here reported is that of D. S., who died at the Milwaukee Infants Home and Hospital on March 27, 1907, at the age of two years and few days. He had been admitted to the institution in poor general condition at the age of 9 months, after the death of his mother from some unknown cause. His father, a very intemperate man, was once in an insane asylum. There are six older brothers and sisters living and well as far as is known. The child was said to have been breast fed for a few months after birth, then the bottle was given with unsatisfactory results. It took much time and experimentation to get him on a suitable food after his admission, but after passing his first birthday he progressed steadily. Although fat and strong looking during his second year he was easily upset and a slight cold or a transient digestive disturbance would be accompanied by a marked elevation of temperature, usually with delirium. At the age of 18 months he passed through a severe attack of croupous pneumonia but made a perfect recovery. From that time until two weeks before his death he seemed to be in good physical condition although the nurses thought he seemed a little "queer" mentally; as far as I could determine this did not pass beyond what might be attributed to peculiarities of temper. About the middle of March a severe vomiting attack occurred which lasted three days. His diet had always been carefully regulated in the institution; he had never been given whole milk for the milk supplied to the Home is from a Guernsey herd and averages about 5 per cent. fat. On this account it is diluted at least one-fourth even for the older children. The only change we were able to find in his diet was that during two or three days preceding the beginning of the vomiting he had been given, during the absence of the head nurse, pieces of bread and butter several times a day. It is possible that in this same period he may have been given some whole milk but this could not be determined.

The vomiting was of the type seen in cases of recurrent vomiting, frequently repeated in spite of withholding all food, and without abdo-

*Read before the Milwaukee Medical Society, Dec. 10, 1907.

minal pain or distension. The temperature was very slightly elevated, there was no icterus, the tongue was clean. The child preferred to lie in a quiet room, was irritable when disturbed, but did not seem to be delirious. Marked prostration and rapid wasting were present. The breath had a heavy acetone odor and the reactions for both acetone and diacetic acid in the urine were very marked. A slight trace of albumen was present and the acidity of the urine was very high.

The stomach and bowels were washed out, all food was withheld, and sodium bicarbonate in moderate doses was given with good results. After a few doses vomiting ceased and the return to an almost normal condition was rapid. The expression about the eyes became more natural, the cheeks filled out, and the character of the stools was good. On the other hand his appetite did not seem as good as usual and his former energy and high spirits did not fully return.

The food given for the first day or two after the vomiting ceased consisted of cereal decoctions and whey, gradually milk was added but the milk was still being diluted about one-third when the final disturbance took place, at the end of ten days after the original attack.

An examination of the urine made on March 21st showed no acetone, no diacetic acid, no albumen.

On the 25th of March he vomited on waking. He was at once placed on barley water and whey feedings and no more vomiting took place that day. The temperature was normal. He had a fairly good night but vomited again on waking next morning. When I saw him on the 26th, his temperature was normal, tongue clean, chest and abdomen negative except for some enlargement of the liver which extended 2.5 cm. below the costal margin in the right mamillary line. There was no jaundice. The most noticeable thing about him was the wild, almost maniacal expression of his eyes and the occasional inarticulate cries which he uttered without any apparent cause.

During the day he did not vomit and his bowels moved normally, but his mental state became steadily more excited. About 10 P. M. he is said to have had a brief unilateral convulsion. When I reached the Home half an hour later he was lying with the legs quiet but not paralysed while the clenched hands and flexed forearms were in a state of constant agitation suggesting the movements of paralysis agitans but of a very much more energetic type. Occasionally these would cease and the arms would be moved about freely showing that there was no loss of power in them. The chin and tongue were also in a state of constant irregular motion which ceased when attempts at swallowing were made. The pupils were equal and reacted normally but lateral nystagmus was present and internal strabismus appeared shortly after this time.

The respirations were shallow, hurried, and jerky and the heart's action was very rapid and rather weak. Apparently consciousness was preserved.

The cardiac and respiratory weakness increased, the movements became less forcible but continued, and finally about four hours later death occurred. Shortly before death the temperature went up and

the child vomited a small amount of altered blood, the only vomiting that had taken place since the early morning.

A full autopsy was not permitted and it was possible to examine only the liver. Exploration of the abdominal cavity through the opening made showed the stomach to be full of altered blood similar to that vomited just before death. In other respects nothing abnormal was found except the liver. This organ extended an inch below the costal margin and presented to a marked degree the yellowish, fawn-colored appearance of extensive fatty change, resembling especially the condition described in the cases of late chloroform poisoning. The tissue of the liver was quite friable, almost completely bloodless on section, and presented a uniform yellowish coloration. An unusually strong odor was present but it was not that of acetone alone; perhaps acetone combined with some of the fatty acids.

Sections of liver tissue stained with Sudan III and hematoxylon show very beautifully an extreme degree of fatty infiltration. The fat is pretty evenly distributed but is perhaps a little more abundant in the periphery of the lobules. Nuclei of connective tissue cells are prominent about the portal spaces but there is no increase of connective tissue. There are no areas of focal necrosis. In the section stained with hematoxylon and eosin the cell outlines are indistinct and throughout the whole section the cells have a thin-walled, bladder-like or signet-ring appearance on account of the crowding of the nuclei to the periphery by the accumulations of fat here shown as vacuoles.

We have here a reasonably healthy boy of two years with no evidence of infection, no change in surroundings, and very little change in diet beyond a possible slight increase in fat and the giving of small amounts of butter, who develops a severe vomiting attack associated with acetone and diacetic acid in the urine. Apparent recovery follows. Ten days later, in spite of careful feeding, a condition of profound intoxication develops leading rapidly to a fatal termination with marked nervous symptoms. Some enlargement of the liver is present and postmortem an extreme fatty metamorphosis of this organ is found.

While it is probable that cases of such severity as this are rare I am convinced that the minor degrees of this condition are frequent, especially among the children of families in good circumstances where too much and too rich food is the rule. In young children it may be only the use of too rich a milk or too large a quantity of beef juice that is at fault; or again it may be due to too frequent feedings. The attacks are often precipitated by fatigue or over-excitement.

It has been stated that the appearance of acetone in the urine in these attacks is the result of the temporary tissue starvation caused by the persistent vomiting. If this were the case the acetone ought

to be small in amount at the beginning of these attacks and steadily increase until feeding is resumed. This does not agree with my experience. From a rough estimation of the quantity of acetone by a comparison of the intensity and extent of the color layer at the point of contact I should say that the acetone content of the urine is highest early in the attacks and greatly diminishes or disappears before feeding is resumed.

It is perfectly true that acetone is found in the urine in a great variety of conditions, but its occurrence in digestve disorders is certainly of some value as a sign of liver insufficiency, and the case I have reported seems to show that it may be a danger signal calling for more prolonged watchfulness than is ordinarily given.

PROF. POLITZER'S RESIGNATION.*

BY SHERMAN E. WRIGHT, M. D.,
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On the first of October there occurred in Vienna an event of importance to medical men throughout the whole world, namely, the official resignation of Prof. Dr. Adam Politzer, the head of the ear clinic in the 'Allgemeine Krankenhaus.'

The ceremonies were held in Prof. Politzer's clinic, and there were present all the professors of the medical school of Vienna, representatives from the government, the University, the various medical associations, his past and present assistants and a great number of students, among whom were many Americans.

Addresses were made by the dean of the University and a number of other gentlemen. The American Medical Association of Vienna, through one of its members, presented a set of resolutions, and still another set of resolutions which were presented contained the names of over four hundred (400) of his former pupils.

The professor was also presented with a gold portrait medal, and following these speeches Prof. Politzer replied in a most interesting talk on the 'Development of the Viennese Ear Clinic, and Otology in General.'

A short biographical sketch may be interesting at this time. Prof. Dr. Adam Politzer was born October 1, 1835, in Alberti,

*Read before the Marinette County Medical Society, Jan. 16, 1908.

Hungary, being the son of a German merchant. He studied medicine at the University of Vienna, receiving the degree of Doctor of Medicine in 1859. Following his graduation he worked some time in various clinics after which he devoted himself to the study of the anatomy of the ear under Hyrtl, a renowned anatomist of the Viennese school, and physiology in Ludwig's laboratory where he discovered the innervation of the internal muscles of the ear and some of the important facts relative to sound conduction.

Later on he went to Würtzburg where he worked with Troeltsch, one of the very few men who had clinical experience at that time. Afterwards he went to London where he studied the pathological anatomy of the ear in Toynbee's collection, and to Paris where at this time Koernig, an expert in acoustics, lived.

Returning to Vienna he was appointed Docent in 1861, being the first Docent in Otology in the University of Vienna. At this time he was compelled to get his material from the other departments of the hospital and deliver his lectures in the internal medicine clinic, as the ear clinic was not established and given quarters of its own until later.

In 1870 he was appointed 'Ordinary Professor,' and since the death of Prof. Gruber in 1897 Prof. Politzer has remained the only head of the Ear Clinic. In 1900 he received the title of 'Hofrat.'

Besides the great amount of teaching which Prof. Politzer has done, he found time to enrich the literature of Otology by contributing many valuable papers and text books.

His anatomical works contain studies on the Topography of the Facial nerve, the Development of the Styloid Process, the Muscles of the Middle Ear, and the Eustachian Tube. His most important work is the 'Systematic Development of Diagnosis based on Pathological Anatomy.' The exact analysis of the Otoscopic picture is produced in his atlas "Die Beleuchtungsbilder des Trommelfells."

He introduced the Politzer air douche into treatment; was the pioneer in the local treatment of attic suppuration; discovered the anatomical basis of chronic adhesive process, otosclerosis, and of the ear troubles in leukemia, syphilis, and typhoid.

He published a text-book on the dissection of the ear in normal and pathological conditions; also the renowned text book of Ear Diseases of which the fifth edition is now about to appear, and a History of Otology, the first volume of which appeared last year.

Prof. Politzer's classes were attended by students from all countries and he took great pains to explain everything in different lan-

guages and he was master of many. He was an exponent of the Viennese system of instruction which bases everything on the demonstration of cases, and allows each student to make every experiment for himself.

His skill in making—in a few seconds of time—artistic colored drawings, was intensely interesting, and he used these drawings freely to illustrate his lectures. Prof. Politzer has always taken a keen interest in art and music, and he owns one of the finest private collections of pictures, miniatures and engravings in Vienna.

He was an old man when ear surgery began to develop, and yet, notwithstanding the fact that he was not a surgeon, he adopted surgery and soon took first place as an ear surgeon. He was a good friend to his clinical assistants to whom he gave valuable suggestions for their practical and scientific work, always allowing them a high degree of independence in their clinical and teaching work, with the result that most of them are now 'Docents' in Otology in Vienna and continue his tradition in teaching.

He leaves the University as fresh and active as a young man and gives promise of being able to devote many years to his extensive private practice and to further scientific work.

His place is now occupied by Professor Urbantschitsch who was formally installed as the head of the Ear Clinic in the Allgemeine Krankenhaus on October 15. Prof. Politzer's teaching will be continued by Prof. Urbantschitsch and Docents Alexander, Alt, Barany, Frey, Hammerschlag, Neumann, and others.

A word regarding Vienna as a medical center. There are many places in Europe, where American medical men can do postgraduate work, but I think it is safe to say that Vienna is the most popular of them all, and this is especially true in the departments of Eye, Ear, Nose and Throat. The reason for this choice is the fact that in Vienna the work is systematized and many of the Docents and Assistants rely almost wholly upon teaching as a means of support.

Four years ago the American Medical Association of Vienna was established. The purposes of the Association, as stated in the constitution, are as follows: "To promote social intercourse of its members; to furnish information for the rapid orientation of new members in regard to pensions, rooms, restaurants, etc.; to provide information in regard to the scope and relative value of courses; to promote the scientific advancement of its members." The control of the personnel of most of the courses has been turned over to the American Medical Association. This was done in order to enable the Society

to place the right of priority to enter these courses on the fairest basis possible, on that of the length of time the applicants for admission have been in Vienna. All medical men in good standing, irrespective of nationality, engaged in postgraduate work, are eligible to membership in this association. Meetings are held weekly, and are addressed by some prominent physician. The Society has done much toward popularizing the work in Vienna. It very seldom happens that anyone is prevented from taking work which he desires.

The best time to arrive in Vienna is on the first of September, as all work begins at that time, although one will have little difficulty in getting suitable work at any time of the year as new courses are being formed constantly.

Drug Absorption and Elimination. E. R. ZEMP, Knoxville, Tenn., (*Journal A. M. A.*, October 19), thinks that physicians do not study their works in materia medica enough, and that they frequently forget or ignore the important actions of drugs that are frequently prescribed. The systemic action of a drug is due to its absorption and the duration of its action is dependent on the rapidity of its elimination: hence the knowledge of the rapidity of absorption and elimination carries with it the knowledge how often to repeat the dose. Physicians should also know the conditions that effect absorption and elimination, the conditions of the circulation, such, for example, as the retarding action of dropsical states which make hypodermic medication dangerous, those of the stomach and intestines, the selective absorbing action of the skin, etc. He reviews several of the commonly used drugs as regards these points and gives his practical therapeutic deductions. In the case of opium with its rapid absorption, slow elimination and consequent cumulative action, he condemns the use of large doses, preferring small doses frequently repeated, and insists on the importance in case of poisoning of keeping the stomach free from the drug, as it is largely eliminated into this viscus where it may be reabsorbed. The need of being prepared for possible dangerous effects of cocain administration is also emphasized, as well as the need of care in draining off dropsical effusions in patients who have been taking large doses of digitalis; the danger of even small doses of nitroglycerin, even tasting it being sometimes perilous, and other points of practical importance in relation to cocain, belladonna, chloral and iodoform are also mentioned.

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EDITORIAL COMMENT.

COUNTY SOCIETY SUPPORT.

The Kenosha County Medical Society, as live a society as there is in this State, has come forward with a good practical suggestion for the financial support of the legislative committee, in obedience to the latter's appeal for voluntary subscriptions to further the work begun and the work in contemplation. A resolution was offered by Dr. G. F. Adams, and unanimously passed at its last meeting on February 7th, that the society contribute from its treasury one dollar for each member for the purpose stated. This does not prevent anyone so inclined from adding a further personal contribution.

Were other County Societies to follow suit, a goodly sum could be realized—not enough perhaps to fill the needs—but sufficient to make it possible to take the necessary means to step into the breach

caused by the stringency of available cash for carrying on suits already begun.

Every such contribution would help; and if, one year hence, the call for funds were again to go forth, we could—falling back upon a record of good achievements—expect similar support from the same societies.

County Medical Societies—the Kenosha Society has adopted a scheme worth your consideration. Give it your attention!

THE UNIVERSITY MEDICAL FACULTY COMPLETED.

With the acceptances of the chairs of pathology and pharmacology by Drs. C. H. Bunting and A. S. Loevenhardt, the faculty for the first two years of medicine at the State University is completed. The University, the State, and particularly the physicians in the state have every reason to rejoice over the signal success which has attended the establishment of the medical department. The character of the work already being done is second to none in the entire country, as may be determined in a visit to these laboratories by anyone competent to judge. The character of the new appointees and of the work they have done suffices to guarantee the same standard of excellence in their departments. Dr. Bunting, as Professor of Pathology at the University of Virginia, and Dr. Loevenhardt, as Associate Professor of Physiological Chemistry and Pharmacology at Johns Hopkins University, have already made most enviable reputations for themselves—both as teachers and investigators. We take the greatest pleasure in being able to offer our sincere and hearty congratulations to the President of the University and the Dean of the College of Medicine on the evident wisdom of their selections, but more especially on the fact that the standing of the University of Wisconsin and its youngest department, Medicine, is so high that men of the proper character and calibre are ready to accept its chairs in preference to those of great prestige in older institutions, and without material inducement.

Manned with a faculty made up of scientists of this high order, the ultimate success of the Department of Medicine of our State University, is assured.

THE PROGRAM FOR JUNE.

The Program Committee for the Wisconsin State Medical Society meeting is being repaid for the pains it has taken to improve the general character of the papers for presentation. The number and quality of those already submitted for acceptance guarantees the liter-

ary success of the meeting. Since the Committee is anxious to have the largest number from which to make the final selection, it is greatly to be desired that everyone desirous of having a paper before the Society make immediate application to the Committee and submit therewith the paper, or at least its synopsis.

MARKET FOR GALLSTONES.

An interesting announcement relative to the commercial use of gallstones (albeit in the beef only) has come to our notice. To the Japanese belongs the secret of any use this pathological concretion may have, and the secret seems to have thus far been well guarded. The report says: "Gallstone can be sold in Japan, in quantity, all that can be secured, at high and profitable prices, varying somewhat according to quality. Until certain Japanese began to import this article the westerners did not know the value of it, and not many knew what it was when asked for. Even at the present time slaughterhouse owners seem not to know the existence of it or that they are throwing gold away.

A Chicago slaughterhouse firm, not knowing the value of it, sold their output to a Japanese importer at about 30 yen ($14.94) per pound, upon which the importer realized 200 yen ($99.60) per pound In course of time the Chicago firm, by way of discovering the value of the stone, gradually increased their price; the quantity at the same time greatly increased, so that the house is yet exporting to Japan thousands of yen worth monthly."

Without having any authority upon which to base the conjecture, we make the bold inference that human gallstones do not vary much in chemical constituency from the bossy variety.

If this be so, and if, in disdainfully relegating human gallstones to the glass bottle—forever to be in a condition of innocuous desuetude—we have been "throwing gold away", there suggests itself to us the interesting question of future proprietorship: whose are the removed gallstones—ante and post mortem?

Will some sage, versed in matters pertaining to the internal economy, kindly solve for us this delicate problem of cholelithic finance?

TUBERCULOSIS CAN BE ERADICATED.

If tuberculosis is ever stamped out—and from present indications it will be within a generation—its eradication will come about not through the efforts of the medical profession, but in spite of it.

While the impetus to the movement has been given by a few medical men of public spirit and enlightenment, there is but little doubt that the layman, keen to his necessities and the dangers to which he is exposed, is doing practically the whole work. The profession as a whole will doubtless be aroused and will do its duty, but the incentive will come not from within itself but because it is forced to act. If a campaign of education is a necessity for the people, it is infinitely more a necessity to the average medical man who has it in his power not only to prevent each and every patient from infecting even one of his fellow beings, but who may do much by early and earnest work in starting that patient on a fair way to recovery.

Physicians, be on the alert to discover early physical changes, and to demonstrate the bacillus in all cases no matter how absurd the suspicion may be at the time, and when found inform your patient or his friends, in order that immediate and intelligent modern treatment may be instituted. That such a campaign, right in our own ranks is a necessity, is shown by two instances which have come to our notice within the past week: One physician, a former president of a medical society, is reported to have told a family that if a person once has consumption he is doomed to die. The other instance concerns a man of large practice who has had more than the usual educational advantages, and who expressed himself as being skeptical concerning the results of sanatorium treatment of the disease even in the face of the published results.

It has been stated that the average physician practices the medicine he learned in his medical college and that newer ideas filter but slowly into his brain. This was shown in the introduction of antiseptic surgery which required a whole generation for its adoption. Do we need a whole new generation of doctors to realize that this dragon —tuberculosis—has met its doom? Let every man of us do his share in its overthrow.

AN INQUIRY OF GREAT VALUE.

The action taken by the State Board of Health in its endeavor to collect statistics concerning the number of epileptic, blind, insane, and feeble minded individuals in the state of Wisconsin that are not taken care of in any state or charitable institution, is a worthy one and should meet the hearty co-operation and approval of every physician and public health official in the state. We have known for a long time that there was a strong tendency to separate the epileptic from the acute or chronic insane in our institutions, and also to pro-

vide more space so that the individuals suffering from milder forms of epilepsy can be placed under proper environment and given the treatment so essential in bringing about recovery in this class of cases.

If the number of epileptics in the state of Wisconsin can be ascertained it will be of immense statistical value in shaping the legislation along these lines. On January 1st, 1904, there were confined in our institutions for the insane in Wisconsin 5,023 persons. This gives a ratio of 227 insane to each 100,000 population. On June 1st, 1890, there were only 1378 insane in institutions with a ratio of 81 persons to each 100,000 population. In thirteen years, therefore, from 1890 to 1903, according to the report of the Federal Census Bureau, there was an increase of 3,645 or an increase of 146 for each 100,000 population. In addition to this the 1903 report does not include the insane outside of hospitals, while the 1890 report includes all the insane in the state—those in hospitals and those at large. The proportion of insane in the state has increased much faster than the proportion of population.

In practically every state in the union the percentage of admissions to public institutions exceeds the percentage of discharges, deaths and transfers combined. To properly provide for this class of people, statistics concerning the number at large in the state and their position in society are of unquestionable value.

The work of the Board in gathering statistics concerning the blind is also of utmost importance. The Board is endeavoring to gain the particulars concerning the number of blind or partially blind as a result of ophthalmia neonatorum, and the number of blind or partially blind as a result of disease or accident.

The 1907 legislature discussed freely during its session the condition of the feeble minded in the state, and endeavored without success to provide proper estimates for care and control of this class of people. While the individuals within themselves are practically harmless, yet they are the means of rapidly reproducing their kind and therefore bringing a heavy burden upon the state.

It has been roughly estimated that there are several thousand outside of the Home for the Feeble Minded at Chippewa Falls and that the percentage is rapidly increasing.

It is not uncommon to find in the institutions for the feeble minded a whole family, sometimes as high as seven in number, being taken care of at the expense of the state. If this condition is allowed to continue, serious social evils will continue to develop. Statistics in this particular line are especially needed and cannot be gathered too soon so that legislation may be enacted accordingly.

The Board, under its recent vital statistics law, is gathering mortality statistics which will prove of much value not only to the medical profession but to the people at large in the near future. The statistics showing the social conditions are of equal value and are rightly classified along the lines of preventative medicine or social economics.

The State Board of Health will soon send out blanks to every practitioner in the state asking for certain information along the various lines mentioned. These reports, after they are received, will be classified and the classification published. No publicity will be made of any report except as they are taken collectively from a statistical standpoint. There need be no hesitancy on the part of the physicians in answering fully and freely all the particulars called for. We believe that the State Board of Health is doing earnest work along these lines and heartily endorse their efforts.

OPHTHALMIA NEONATORUM.

In another editorial in this issue we call attention to efforts that are being made by the State Board of Health to gather statistics upon the number of blind, epileptic and feeble minded individuals in the State, outside of institutions.

The Massachusetts authorities, appreciating the burden assumed by the State in its care of those afflicted with blindness, has taken the step needed to do away with this infirmity, at any rate in so far as it is caused by ophthalmia neonatorum. Inasmuch as we understand perfectly the pathology of these cases, and know how they can be prevented, their occurrence must be charged almost wholly to remissness on the part of the acting accoucheurs. A drop or two of a week silver nitrate solution, it is well known, will prevent a vaginal infection from attacking the eyes, and the omission of this procedure may be considered an act of criminal carelessness.

Legislation in Massachusetts, making it compulsory, under the imposition of a fine for neglecting the procedure on the part of all accoucheurs, to instill a few drops of a one per cent. solution of silver nitrate into each eye of new born babes, will prove of immense economic value, and will prevent the many pitiable cases of blindness, partial or total, with which we are daily confronted in private and institutional work.

POLIOMYELITIS EPIDEMIC IN WISCONSIN.

The recent epidemic of poliomyelitis in New York City has directed attention to the disease with renewed energy, for heretofore,

especially in America, while sporadic cases have been numerous, no well marked epidemics have been reported. In Europe, especially in the Scandinavian peninsula, epidemics occurred in 1887 and 1895 respectively, 43 and 21 cases; acute poliomyelitis, polyneuritis and acute bulbar paralysis occurring simultaneously. In 1903 and 1904 the disease again appeared with a total of 59 cases and 18 deaths. In 1905, 719 cases with 111 deaths occurred, and in 1906, 334 cases with 34 deaths. Reference to these epidemics may be found in an article by Harbitz and Scheel (*Journal, A. M. A.*, Oct. 26, 1906). A careful study of the cases appearing in New York and vicinity with reference to the determination of the etiology of the disease, made by Flexner at the Rockefeller Institute, has failed so far to demonstrate the specific virus which inferentially must exist.

During the months of September and October, 1906, two small localized epidemics of the disease appeared in Wisconsin in rather widely separated districts, the one in Trempealeau County on the Mississippi River, and the other in Kenosha County in the southeastern corner of the state. It would not be surprising to find that other areas had been affected, and it is the desire of the program committee of the State Medical Society to learn of any cases, epidemic or otherwise, occurring during the last half of the year 1906, in order that a full report may be made at the coming meeting in June. Members of the Society are requested to send to the editor of the WISCONSIN MEDICAL JOURNAL such facts as they may have leading to a compilation of the cases. Clinical reports, where available, will also be of great service in the investigation, which by cooperation of the members of the society, will not only lend interest to the meeting, but will also demonstrate, in still another form of activity, the benefit of the organization.

CREMATION OPPOSED IN AUSTRIA.

It must be solely for reasons of sentiment that the cremation method of disposing of dead bodies, so rapidly growing in favor in this and other countries is not yet countenanced in Austria—a country that leads in many branches of hygiene and sanitation.

There is at present considerable agitation in Austria with a view of obtaining the goverment's consent to the erection of crematories. An association for this purpose has been organized, but its work at the present time—in addition to agitating in favor of home crematories—is confined to transporting the remains of bodies to be disposed of in this manner to the nearest available country. The ashes

are then forwarded to their destination, back into Austria, or into foreign lands. Inasmuch as the difference in transportation charges is very considerable—it being necessary to charter an entire car for a body, while ashes may be carried by parcels post—the cremation idea has through this also been given a great impetus.

It is proable that Austrian sentiment will soon give way to practicability and a realization of the greater sanitary character of cremation as opposed to burial.

NEWS ITEMS AND PERSONALS.

Dr. R. C. Aylward, formerly of Star Lake has moved to Port Edwards, Wis.

Dr. T. M. Miller, a well known physician of Medford, died on February 6, 1908.

Dr. L. F. Klemm, of Milwaukee, was thrown from his cutter on February 12. He escaped with a slight injury to his back.

Dr. Margaret Caldwell, of Waukesha, recently won out in a suit for damages brought against her under the allegation of improper treatment of an injury.

The Children's Hospital, Milwaukee, recently had a small fire that did but little damage. Fortunately, the blaze was discovered before it had made much headway.

Typhoid fever cost Pittsburg $721,436 for the year ending in June, 1907, according to an estimate established by investigations undertaken by the Pittsburg Survey.

Annimal Tuberculosis. The managers of the Appleton fair have closed a deal whereby post-mortem demonstrations of tuberculosis in livestock will be given one day at the fair next August.

Dr. Charles Pomainville, of Grand Rapids, was fatally burned on February 3rd, in trying to save his servant whose clothes caught fire from ignited gasoline which she had poured into a stove.

The Sacred Heart Hospital, of Eau Claire, according to its annual report just made public, treated 1,600 patients during the past year, and over 700 operations were performed by its staff.

Dr. F. W. Byers, of Monroe, one of the oldest and best known physicians of the state, intends to retire. Dr. Byers is a prominent Grand Army of the Republic man, and was formerly surgeon general of the Wisconsin National Guard.

Dr. Broughton's Sanitarium, at Rockford, Ill., boasts of a new three story annex, just completed and open for patients. Besides containing rooms for patients it is contemplated to fit up the basement as a bowling alley and gymnasium for the use of the patients.

"Dr." John Till, of Somerset, famous for his plaster treatments, for all ills, and the inability of the State Board to thus far have attacked him successfully, will again be investigated because of the death of a patient from pneumonia upon whom this plaster was used.

An Institute for Cancer Research is strongly advocated by Prof. Ernest von Leyden, who recently has devoted himself entirely to the study of cancer, from which 40,000 persons die yearly in Germany. He also recommends the formation of an international association for an exchange of results of investigations.

Dr. Edward C. Schnittker, of Milwaukee, was found guilty of having performed a criminal abortion upon Anna Severson in June 1906, and was sentenced to serve a term of four years at Waupun. The court also revoked his license to practice medicine. This was Snittker's second trial, the first having resulted in a disagreement.

Dr. Gertrude C. Crumb, of Milton, died in Milwaukee, January 7, 1908. after an operation for the removal of gallstones, aged 42. Dr. Crumt was graduated in 1894 from Northwestern University, Woman's Medical College, at Chicago, and was a member of the Green Lake County Medical Society, having practiced medicine at Berlin for thirteen years.

State Board of Health. At its annual meeting on January 30th, the Wisconsin State Board of Health and Vital Statistics re-elected Dr. Wm. F. Whyte, of Watertown, president. Dr. C. A. Harper, secretary, holds over. Dr. Harper's report showed that there was no serious outbreaks of disease during 1907, though there were several minor epidemics.

The Oconomowoc Health Resort, recently burned to the ground, is to be rebuilt, and will be ready for patients on August 1st. It is worthy of mention that not a single one of the patients who were in the building at the time of the fire, and who were hastily taken out and cared for in neighboring houses, suffered from the exposure to which they were subjected in their hasty retreat.

The Wisconsin Committee, of the International Congress on Tuberculosis has enlisted the interest of the Governor in the exhibit it wishes to make at the Congress to be held in Washington from September 21 to October 12. The Governor has communicated with various state bodies, and has authorized the State Board of Health to take up the matter with various public, private and voluntary organizations.

Dr. W. Dwight Saxton, for eighteen years a practitioner in Milwaukee, died Feb. 6, of heart disease. Dr. Saxton was born in New York, May 7, 1837. He came west after graduating in medicine, and was established in Milwaukee for several years succeeding the Civil War, as well as during the closing years of his life. During his prime he enjoyed a large practice at Paterson, N. J., and in New York City.

Training in Medical Organization. The students of the University of Pennsylvania Medical School have formed an organization the purpose of which is to acquaint the undergraduates with the workings of the American Medical Association, after which it is very closely modeled. The various student societies take the place of the state organizations and elect members to a House of Delegates which transacts all the business of the association. An annual meeting is held at which papers are read by chosen members, thus encouraging original research and a scientific spirit. The organization is named The Undergraduate Medical Association of the University of Pennsylvania and already has over two hundred and fifty members.

SPECIAL COMMUNICATIONS.

REQUEST FOR CANCER STATISTICS.

December 27, 1907.

Editor Wisconsin Medical Journal:

Will you kindly insert the following in your paper giving it as prominent a place as possible?

The writer desires information regarding any alleged recoveries or cures of inoperable or recurrent carcinoma of the mammary gland.

If any case or cases are known to anyone who reads this circular and can be authenticated by facts as to the history and condition prior to recovery and the length of time which has elapsed since recovery, such information will be much appreciated and duly acknowledged.

Any well-authenticated reports of recoveries from carcinoma located in other parts than the mammary gland will be welcomed.

Cancer paste cures, X-ray cures, radium cures, or cures as result of surgical operation, are not wanted.

Hearsay cases are not wanted unless accompanied by name and address of the person who can give knowledge first hand.

Address: HORACE PACKARD,
470 Commonwealth Ave.,
Boston, Mass.

ANNOUNCEMENTS.

SMITHSONIAN INSTITUTION.

HODGKINS FUND PRIZE.

The Hodgkins Fund Prize of $1,500 is offered by the Smithsonian Institution, Washington, D. C., in accordance with the following announcement:

In October, 1891, Thomas George Hodgkins, Esquire, of Setauket, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man."

In the furtherance of the doner's wishes, the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations, and issued publications.

In connection with the approaching International Congress on Tuberculosis, which will be held in Washington, September 21 to October 12, 1908, a prize of $1,500.00 is offered for the best treatise that may be submitted to that Congress "On the Relation of Atmospheric Air to Tuberculosis."

The treatise may be written in English, French, German, Spanish or Italian. They will be examined and the prize awarded by a Committee appointed by the Secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis.

The right is reserved to award no prize if in the judgment of the Committee no contribution is offered of sufficient merit to warrant such action.

The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded.

Further information, if desired by persons intending to become competitors, will be furnished on application.

CHARLES D. WALCOTT,
Secretary, Smithsonian Institution.

Washington, Feb. 3, 1908.

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH, NEW YORK.

ANNOUNCEMENT OF SCHOLARSHIPS AND FELLOWSHIPS.

The Rockefeller Institute for Medical Research purposes to award for the year 1908-1909 a limited number of scholarships and fellowships for work to be carried on in the laboratories of the Institute in New York City, under the following conditions:

The scholarships and fellowships will be granted to assist investigations in experimental pathology, bacteriology, medical zoology, physiology and pharmacology, physiological and pathological chemistry and experimental surgery.

They are open to men and women who are properly qualified to undertake research work in any of the above mentioned subjects and are granted for one year.

The value of these scholarships and fellowships ranges from Eight Hundred to Twelve Hundred Dollars each.

It is expected that holders of the scholarships and fellowships will devote their entire time to research.

Applications accompanied by proper credentials should be in the hands of the Secretary of The Rockefeller Institute not later than April 1, 1908. The announcement of the appointments is made about May 15th. The term

of service begins preferably on October 1st, but, by special arrangement may be begun at another time.

L. EMMETT HOLT, M. D., *Secretary,*
14 West 55th St., New York City.

IN MEMORIAM.

DR. RICHARD S. O'CONNELL.

The following resolutions on the death of Dr. Richard S. O'Connell, were passed by the Manitowoc County Medical Society.

Whereas, by the ruling of The Divine Being, one of our number, after an active and useful life, has been gathered in by the Messenger of Him who doeth all things well, and

Whereas, his voice is stilled, his place made vacant, and Dr. Richard S. O'Connell has been called to his reward,

THEREFORE, be it resolved, that the Manitowoc County Medical Society loses a valued member, an active supporter and friend; whose kind, generous, thoughtful and unassuming acts endeared him to all who came in contact with him. Be it further

Resolved, that these resolutions be placed in the permanent records of the Society, that a copy be sent to his wodow and son with our sincerest sympathy for them in their deep affliction, and be it further

Resolved, that these resolutions be printed in the Manitowoc papers and also that a copy be sent to the WISCONSIN MEDICAL JOURNAL.

J. E. MEANY,
LOUIS TALGE,
J. R. CURRENS.

Richard S. O'Connell, M. D., was born in Malone, New York, June 8, 1846. He received his preliminary education in Franklin Academy and graduated from the Albany Medical College, December 25, 1871, taking a post-graduate course of one year at Rush Medical College in 1877. In 1873 he located at Cato, Manitowoc County, Wis., where he remained in active practice until the time of his death, which occurred at his home December 10, 1907, after an illness of three weeks.

Executive Committee
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3200 Clybourn St. Milwaukee
Dr. C. H. STODDARD
Goldsmith Bldg. Milwaukee
Dr. G. E. SEAMAN
Goldsmith Bldg. Milwaukee
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Vice-Chairman and Secretary Dr. HOYT E. DEARHOLT.
Assistant Secretary, PROF. W. D. FROST.
Treasurer MR. JOHN N. KOPMEIER.

Wisconsin Committee
of the
International Congress
on
Tuberculosis.

WASHINGTON, SEPT. 21-OCT. 12, 1908

Executive Committee
Prof. MAZYCK P. RAVENEL
University of Wisconsin
Madison, Wis.
Prof. W. D. FROST
University of Wisconsin
Madison, Wis.
Mr. JOHN N. KOPMEIER
Wells Bldg. Milwaukee
Mr. M. J. TAPPINS, Capitol Bldg.
Madison, Wis.

UNIVERSITY OF WISCONSIN TUBERCULOSIS EXHIBIT.

The Tuberculosis Exhibit of the University of Wisconsin was prepared for the House-keepers Conference in February, 1907, jointly by Professor Caroline L. Hunt of the department of Home Economics and Professor W. D. Frost of the department of Bacteriology. In preparing the exhibit considerable help was given by those interested in the subject of tuberculosis in Milwaukee, especially by Dr. Hoyt E. Dearholt, in the way of furnishing charts, pictures and models.

While the exhibit was prepared for a special purpose, it was soon found that it was of general interest, and after the close of the Conference it was kept open for several weeks in Madison and was studied, particularly by the University students. The demand for the loan of the exhibit by other cities throughout the state was immediate and has been constant, and the Exhibit has, therefore, been in practically continual use since it was gotten together.

The exhibit consists of a large series of charts showing the prevalence of the disease in Wisconsin and elsewhere, age distribution, the effect of the various factors on the death rate, as for example, race, occupation, environmental conditions, such as overcrowding, and the poor sanitary conditions in the great cities. Models of sanatoria, cottages, window tents and means of disinfection are shown, as well as a large number of photographs illustrating the conditions at the various sanatoria in this and other states.

About a thousand people, largely students, studied the exhibit while it was at the University.

WORK OF THE EXTENSION DEPARTMENT.

When it was seen that the Tuberculosis Exhibit was attracting general attention, the University Extension Department, under the

influence of Mr. F. A. Hutchins, undertook to carry the exhibit to various parts of the state and furnish a lecturer when desired. Under these auspices the exhibit was first loaned to Milwaukee where it formed the nucleus of the exhibit held there in May with an attendance of 1800. In August it was sent to Oconomowoc where it was open to the public for four days in the City Hall under the direction of Dr. W. S. Wing. In September it was sent to Eagle to be used in connection with the fair. In October it was sent to Fond du Lac where it was exhibited under the direction of the State Federation of Women's Clubs. Later in the same month it was sent to Portage. In November it was sent to Eau Claire and Menomonie. At Eau Claire it was exhibited under the direction of the district medical society. At Menomonie it was exhibited under the auspices of the Stout Training Schools. There are a number of places on the waiting list now.

In addition to sending the exhibit to these places, the extension department of the University has sent Professors Ravenel, Hunt or Frost to all of these places for one or more lectures.

At Madison the exhibit was open two Sunday afternoons. One afternoon Dr. Dearholt of Milwaukee spoke and the other afternoon Dean Russell spoke. At both of these meetings there was a good attendance.

At Oconomowoc and Portage the Common Council paid the necessary expenses in connection with the display of the exhibit. At the latter place, the Woman's Club appointed committees which visited every family in the city and urged the members to visit the exhibit and hear the lectures. At Portage, Eau Claire and Menomonie the exhibit was shown in rooms connected with the public libraries.

The lectures at Portage and Eau Claire were especially well attended and drew crowded houses.

W. D. FROST, *Assistant Secretary.*

When the University Exhibit was held in Milwaukee, a large vacant store was gratuitously placed at the disposal of the committee by the Colby and Abbott Building. The exhibit was kept open for one week and was advertised solely by the newspaper "stories" and the large display windows which were utilized. The entire cash expense was in the neighborhood of $50. A large amount of time, however, was given to the installation, to demonstrating, etc. Subscriptions were offered at the Exhibit to more than cover the cash outlay.

Professor Frost has hardly done justice to the description. The exhibit is probably one of the best state exhibits in the country and

the demand for its loan should be so great that there should not be a week in which it is not in use.

PROGRESS REPORTED.

The past month has been one of anti-tuberculosis activity in various parts of the state.

La Crosse has started out actively on the campaign. Janesville and Beloit are arranging for open meetings of the medical society, while press clippings received, manifest a pretty general interest.

FINANCES.

Madison Committeemen have entered upon a canvass for the purpose of raising a portion of the needed $5,000. A number of Milwaukee business men have assumed the responsibility of raising $1.500. As they are among the members of the Merchants and Manufacturers Association which raised the bulk of the $25,000 for the philanthropic Blue Mound Sanatorium, there remains no question that Milwaukee will make a contribution of at least this amount.

The financial responsibility belongs to the entire state and every portion should be organized and canvassed to make its contribution.

PRESS BUREAU.

Arrangements have been made for the preparation and forwarding of press copy to each daily in Wisconsin once weekly. Where the demand warrants, weekly papers will be placed upon the mailing list also.

The newspapers throughout the state are displaying remarkable and intelligent interest in the subject of tuberculosis and are apparantly anxious to devote any amount of space to the subject for which they find a general demand. Local medical men should offer their encouragement in this attempt to bring practical information to the homes where it is needed.

HOYT E. DEARHOLT, *Secretary.*

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President — Herman Gasser, Plattville, 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

TERM EXPIRES 1911.		TERM EXPIRES 1908.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., Edward Evans,	La Crosse
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
TERM EXPIRES 1912.		**TERM EXPIRES 1909.**	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerhering,	Wausau
4th Dist., W. Cunningham,	Platteville	10th Dist., E. L. Boothby,	Hammond
TERM EXPIRES 1913.		**TERM EXPIRES 1910.**	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., C. J. Combs,	Oshkosh	12th Dist., A. T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

MEDICAL DEFENSE.

At the meeting of the Council, it was voted that a copy of the Report of the Committee on Medical Defense should be sent to every reputable physician in the State. The Report has been printed and sent to the Councilors. Most of the Councilors will mail the Report directly to the physicians in their district. Some, I learn, are sending to the County Secretaries. In either case the report should be sent out at once, that the whole profession may be fully informed on the subject before the annual dues are collected. We wish the *non*-members, especially, to know about the matter, since it certainly offers another strong inducement to join the Society.

So far as it can be learned there is but little dissatisfaction and but "few kicks" regarding the extra dollar for the Defense Fund. It is so little for each one, and means so much for the man in trouble, that no one ought to hesitate. Moreover, no one knows but that he may be the next victim.

If any County Secretary wishes more copies of the report for distribution in his county, please send to the State Secretary at once. Also, bring the matter up in the Society Meetings, and have it thoroughly understood that the Executive Committee is prepared to offer the best possible defense, with 1600 good men and true to back it up. The machinery is now in working order and if any member of the Society is threatened with a suit he should at once communicate with Dr. G. E. Seaman, the chairman of the Executive Committee, who will send the necessary instructions.

It is desirable to make the matter of Medical Defense as general as possible and non-sectarian. In Illinois, members of the Homeopathic and Eclectic State Societies are allowed to contribute their dollar and share in the benefits of the plan. They think this provision has been of material advantage. It is altogether likely that we may profitably adopt such a plan also.

FUNDS TO PROSECUTE QUACKS.

The appeal for funds of the Committee on Public Policy and Legislation should receive a prompt and generous response, both by individuals and the County Societies. That these frauds and mountebanks shall be allowed to prosecute their nefarious business unmolested, is unthinkable. The State, whose duty it is to prosecute them, has refused to do it's duty. Accordingly it remains for the medical profession to do this work, or leave it undone. The Committee must employ attorneys and conduct suits, etc., all of which requires cash. If they are willing to contribute such a large share of their time, we ought to be willing to help out in the expenses.

Send your checks to Dr. A. W. Gray, Goldsmith Bldg., Milwaukee.

THE PROGRAM FOR THE STATE MEETING.

is gradually assuming form. It is bound to be one of the very best, from the present outlook. It is not fully completed and we wish we could get two or three good papers from the Northern part of the State. It is hoped, and expected, that those accepting a place on the program will put into their papers the very best work in their power—so that our Annual Meeting shall truly represent the best thought and ability of the Society.

ANNUAL DUES.

The collection of the Annual Dues is now in order and should be followed up with energy. The County Secretaries will collect the one dollar for Medical Defense with the regular dues—making $3.00 in all. The two items should be put down separately, however, in the bill. If we are to maintain our present membership more effort than usual must be made, since some may be unwilling to pay the extra dollar. This is now a part of the regular dues and is obligatory for all.

C. S. S.

COLUMBIA COUNTY MEDICAL SOCIETY.

The Columbia County Medical Society met in annual session for the election of officers at Portage, January 7th, 1908. The following officers were elected for the ensuing year: president, Dr. John Binnie, Poynette; vice-president, Dr. E. P. Andrews, Portage; secretary and treasurer, Dr. R. A. Waite, Columbus; censor for three years, Dr. O. O. Force, Pardeville; delegate, Dr. John Binnie, Poynette, alternate, Dr. J. R. Jones, Randolph.

The resolution of the State Medical Council on Medical Defense was unanimously adopted.

R. A. WAITE, M. D., *Secretary.*

DANE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Dane County Medical Society was held on January 28, at Madison, Dr. P. H. Fox, the president, presiding, with an attendance of 35. The Dane County Druggists had been invited and after a banquet the following program was carried out:

Subject for discussion: "What should be the relation between the physician and pharmacist?"

There were two papers on this question. The first, by Mr. Edward Williams, representative of the pharmacists. The second, by Dr. Julius Noer, representing the physicians.

The principal points brought out in these papers were as follows:

1. One difficulty druggists have in filling physicians' prescriptions is on account of the great number of new drugs and mixtures introduced to physicians by traveling men, the physicians being induced to present such preparations, the druggist getting a few prescriptions, then the prescribing of such drugs being stopped, leaving the druggist with an unused stock on hand.

2. It is unjust to the druggist for the physician to suggest to the patient how much certain prescriptions should cost. The physician has no more right to question the charge made for medicine, than the druggist has to question the charge made by the physician for services.

3. The importance of the pharmacist being sure of the purity of the drugs dispensed, was dwelt upon.

Prof. Richard Fischer, State Chemist, gave a few results obtained in his investigation as to the purity of drugs as found in the average drug store.

Much lime water had been tested which contained no liquor calcis at all. Tincture of iodine had been found which contained less than 1 per cent. of iodine. Fowler's solution had been found to be double strength in one case.

4. Physicians should make it a point to study the U. S. P. & N. F. and prescribe preparations found therein rather than the many and similar preparations introduced to the physicians by the traveling men.

The papers were freely discussed by both physicians and pharmacists.

L. H. FALES, M. D., *Secretary.*

* * *

The regular monthly meeting of the Dane County Medical Society was held at Madison, February 11, 1908, with an attendance of 30.

After partaking of an elaborate dinner, the meeting was called to order by President P. R. Fox, and the following program presented:

1st Paper: The Diagnosis of Rabies, by K. W. Smith, Instructor in Bacteriology, Univ. of Wisconsin.

2nd Paper: Methods of Infection in Tuberculosis, by Prof. M. P. Ravenel, Professor of Bacteriology, Univ. of Wisconsin.

Both of these papers were exceedingly interesting and elicited much discussion. Mr. Smith demonstrated the fact that we now have a quick and positive method of determining whether or not an animal has died of rabies. Some pretty specimens of the Negri bodies were shown.

Prof. Ravenel showed how important it is that cattle supplying milk be tested for tuberculosis. He stated that a large percentage of tuberculosis, especially tuberculosis of the lungs, is caused by the drinking of tuberculous milk. This is especially true in children. It has been shown by experiments that tubercle bacilli in cream are readily absorbed from the intestinal tract, carried by the thoracic duct to the circulatory system, and then riddling the lungs with areas of infection. This is done without causing any infection of the intestinal tract.

Prof. Ravenel's paper was very timely as a milk ordinance is now being considered by the Madison City Council for passage.

It was moved and carried that a committee of three be appointed to draft resolutions showing that the Dane County Medical Society endorses the milk ordinance. The following resolution was adopted:

Resolved, That it is the sense of the Dane County Medical Society and especially of those members resident in Madison, that the ordinance regulating the sale of milk now pending in the city council is of extreme importance for the health and welfare of the people of Madison, and we urge its adoption in the form presented to the council.

The following resolution by Dr. Donovan was also adopted:

Whereas, The contagious hospital of this city at the present time is an unfit place for the care of contagious diseases, and

Whereas, It is dangerous to confine diphtheria, scarlet fever and smallpox under the same roof, and

Whereas, The present building is unfit in every way for use as a contagious hospital, be it

Resolved, That the Madison members of the Dane County Medical Society recommend to the City of Madison, that they build a new contagious hospital.

Dr. Ravenel and Dr. Chorlog were elected to membership.

L. H. FALES, M. D., *Secretary.*

EAU CLAIRE COUNTY MEDICAL SOCIETY.

The Eau Claire County Medical Society held its regular monthly meeting January 27th, 1908, in the small banquet hall of the Eau Claire Club, the president Dr. Chr. Midelfart, presiding.

The programme for the evening was as follows: *Digitalis, Its Use and Abuse,* Dr. D. W. Ashum; *Proper and Practical Time for Isolation in Contagious Diseases,* Dr. Alex. Montgomery; *Value of Analysis of Stomach Contents,* Dr. John Mathiesen.

The annual election of officers was held resulting as follows: president, Dr. D. W. Ashum; vice-president, Dr. H. A. Fulton; secretary, Dr. J. Manning; treasurer, Dr. R. F. Werner; censor, Dr. G. E. Curtis.

The regular meeting will be held at Eau Claire, February 24, 1908.

J. MANNING, M. D., *Secretary.*

KENOSHA COUNTY MEDICAL SOCIETY.

At the regular meeting of the Kenosha County Medical Society held at the office of Dr. Stalker, February 7, 1908, the following members were present: Drs. Ripley, Adams, Cleary, Eastman, Robinson, Kimball, Gephart, Palm, Van Westrienen, Windesheim, Stalker, McCracken, Jorgensen.

The appeal from the committee of the State Society on Public Policy and Legislation was read, extensively discussed and the following resolution unanimously adopted.

Whereas, The Wisconsin State Medical Society has sent out an earnest appeal to the physicians of the state for funds to aid in the enforcement of the statutes regarding the practice of medicine in this state, be it therefore

Resolved, that the Kenosha County Medical Society appropriate from its treasury for the above named purpose the sum of Thirty dollars, that amount being one dollar for each member of said organization.

Resolved, that our secretary-treasurer be hereby authorized to forward said sum at once to Dr. A. W. Gray, Chairman Public Policy and Legislative Committee.

A paper on *Obstetrics* was presented by Dr. J. O. McCracken and discussed by the society.

Dr. C. A. Palm presented an interesting specimen of a placenta from a woman who had given birth to triplets on February 5th, 1908.

Dr. H. A. Robinson showed us the body of a child born February 7th, 1908, with an enormous hydrocephalic head, a spina bifida, and a club foot.

P. P. M. JORGENSEN, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the La Crosse County Medical Society was called to order on January 2nd, 1908, at the new La Crosse Club, with the President, Dr. T. H. Miller in the chair. Dr. Miller, as incoming president made a very thoughtful, suggestive and stimulating speech on the *Ideals of a County Medical Society.*

Dr. Gunderson presented a specimen: A large stone which he had re-

moved from the bladder, and some x-ray plates of the pelvis of the patient, with the stone in situ.

The papers of the evening, on the general subject of *Puerperal Sepsis*, were then presented.

Dr. Dvorak read the first paper, on *Prophylaxis*, and detailed his method of conducting normal labor, demonstrating his obstetric bag and its contents.

Dr. Reed read the second paper, on *Pathology* and Dr. Gunderson the third on *Treatment of Puerperal Infection*.

In the discussion which followed nearly every member took part, and many practical points were brought out.

Dr. Sara Nimocks of La Crosse was elected to membership in the Society. The secretary then presented the program for the meetings of the current year.

The next meeting will be held on February 6th at the New La Crosse Club.

At the meeting Dr. Edward Evans will present and demonstrate *Some X-Ray Plates* and they will be discussed by Dr. Christensen.

A "Dutch Lunch" will be Served.

EDWARD N. REED, M. D., *Secretary*.

* * *

The regular monthly meeting of the La Crosse County Medical Society was held at the New La Crosse Club on Thursday evening, February 6th, with the president, Dr. T. H. Miller, in the chair.

Dr. Henry Roome, U. S. Government Inspector at the local packing house, then demonstrated tuberculous cervical glands which he had removed from a hog which was sold in La Crosse. Dr. Roome answered a number of questions about the appearance of tuberculosis in hogs and cattle, its etiology and its dangers to man.

Dr. C. Christensen presented and demonstrated a gangrenous appendix removed by him.

The secretary read a communication from Dr. C. S. Sheldon, stating that the Medical Defense Plan for the State Society had been adopted.

Dr. Edward Evans then demonstrated a collection of X-ray plates, illustrating many interesting conditions.

He was followed by Dr. C. Christensen who showed some beautiful plates from his collection.

Dr. Evans made a few remarks on the relation of the Medical Profession to Tuberculosis as a Sanitary Problem, and introduced three members of the Humane Society, Rev. J. J. Clemens, Prof. F. H. Fowler, and Attorney J. E. McConnell, each of whom spoke briefly about tuberculosis from the layman's viewpoint.

A motion was made and carried that this Society endorse Rev. Mr. Clemens as the representative of the National Tuberculosis Congress in this section.

The Society then adjourned to partake of a "Dutch lunch" and discuss informally the problem of tuberculosis.

EDWARD N. REED, M. D., *Secretary*.

THE WISCONSIN
MEDICAL JOURNAL
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ORIGINAL ARTICLES.

THE PHYSICIAN IN HIS RELATION TO CONTAGIOUS DISEASES AND THE PUBLIC.*

BY C. A. HARPER, M. D.,
MADISON, WIS.

It is not the purpose of this paper to give a classification of contagious diseases, or to present characteristic symptoms of any in particular. The references herein made refer to management in general, to all the diseases classified as contagious, but more especially to that class of diseases known as quarantinable.

The physician in his management of quarantinable contagious diseases, is in a different light to the public from that in which he is in the handling of diseases ordinarily coming under a general classification. It is therefore important that his relationship be definitely understood that he may conduct himself honestly to the public, and to his patient, and ethically to the profession and to himself. The mere medical treatment of many cases of quarantinable contagious diseases, if mild, is often secondary to the good he can do to the public at large and the profession in general. It is therefore extremely important that he understand this responsibility in the broader term.

A profession is as its members make it. Its principles of unity and advancement should receive their due proportion of attention. The medical man should exercise his independence of thought, his foresight, exert his influence over the patient and the patient's friends in a more careful manner when a contagious disease is under consideration than he would were he called upon to take charge of an individual suffering from one of the deep seated and complex maladies

*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, Aug. 23, 1907.

unfamiliar to the general public. In other words, the physician should be master of his knowledge in making a diagnosis of contagious and infectious diseases the same as he controls and exercises his learning and skill in diagnosing ailments which heretofore have been wholly foreign to a community.

That this is true my experience and observation have led me to doubt. I not only believe, but feel confident, that in some localities there is a difference in the manner of certain attending physicians when they are called upon to differentiate between a quarantinable disease and a disease that is not attended with any other hardship, so to speak, than the sickness itself.

The educated public is usually willing to allow the physician the right to the science of his profession, but the semi and partially educated frequently take a special delight in usurping the physician's ammunition, and too frequently the diagnosis is ready for him on his arrival, the history of the case is graphically told, the neighbor's opinion is reiterated, the influential citizen of the locality has satisfied himself as to the true nature of the ailment and the method of handling the case is outlined; too often the lenient good natured medical man falls in such a trap, later to find himself duped and the critical public making life a burden for him. Each and every one of the quarantinable contagious diseases has had, and is having its victims in this respect, and each one of these diseases lends its treachery in filling the ranks of the various disbelievers.

The rise and fall of the medical profession, therefore, in its influence in a community or at large, is to a great extent as its members make it. Call a case of smallpox Cuban itch and you swell the ranks of Christian Science; insist that membranous croup is not diphtheria, and therefore non-contagious, and you make adherents to some cult; call scarlet fever scarlatina to deceive the public or gain advantage over your fellow practitioner, and you have started the preparation of your sign, "Office for rent or for sale."

Unfortunately these facts are not myths or imaginary and the great medical profession as a result is frequently put on the defensive, which is certainly an undesirable position. It is especially unfortunate that the medical profession quibble so much over the so-called quarantinable contagious diseases and so little is known of the law governing them. The public, on the other hand, is intensely interested in all of this character of diseases, and along these lines the average citizen has become a close observer and a wise reasoner.

The characteristic clinical symptoms of smallpox, scarlet fever, and diphtheria can be seen, and any effort to cover up the true nature

of the ailment may meet with temporary approval by the specially interested individual for the purpose of escaping quarantine, and even an entire community may sometimes sanction such action, but under such conditions the medical men in that particular locality have had a setback. Distrust is put in the public eye as to the honesty of purpose, and when serious troubles of a different nature arise confidence is lost and chaos reigns, and thus the ranks of various "sects and isms" greatly increased. If the public is mislead about something in which it is well informed, it is fearful of the same deception in diseases about which it is wholly ignorant.

I will admit that there is occassionally great difficulty in diagnosing some of the diseases under consideration, and the most skilled is liable to error. No physician may be infallible in this respect. The sympathetic chord of a medical man, good and true as he may be, might lead him to error, and honestly so. I am not here, therefore, to criticise in the least the profession as a whole. The great work of the medical fraternity is far above criticism. It is a mountain of strength and influence. I am simply endeavoring, as it were, to throw a little advice into some of its gulches—starts the ball to rolling in the right direction.

I desire to emphasize the necessity of eliminating Cuban itch from the category of diseases in this state and country, and therefore call smallpox by its rightful name. Christen the adjective with it as you may. Do not rob the children of their monopoly of chicken-pox even in these day of anti-trusts and anti-monopolies. Let the old man in his second childhood be free from this child affliction. Give diphtheria its due. It has had its terrors and has them yet. 576 children in this state, in a little over a year, have answered once for all to its summons. With antitoxin as a specific and the laboratory as an aid to diagnosis, is this number flattering? Educate the public to call the physician early in cases of sore thoat, and make it compulsory that every physician use antitoxin early and freely in all cases of diphtheria. This great number can then be reduced below twenty-five. Permit the red flag to be placed immediately on the houses of those afflicted with scarlet fever. This disease has its complications and sequelæ even if the initial clinical symptoms are mild. Eliminate the synonym "scarlatina" forever; the man who coined that word, used as it is, is much a murderer. It deceives the layman and makes him careless in caring for the sufferers. No case of scarlet fever can be too carefully handled no matter how mild it may seem.

The public has a right to a knowledge of the presence of all contagious diseases and absolute protection from any and all possible

sources of infection. Why not accept the statements of eminent authorities to-day concerning these diseases as freely as of old?

Every disease, as it were, has a cycle, and especially is this true of contagious diseases, and smallpox in particular. This disease may be unusually mild for a half century and without intermission may become malignant the next half. Explanations of these variations are not easily shown. It is claimed by some authorities that when smallpox is malignant the public is frightened and every individual becomes more or less immune, either by an attack of the disease or through vaccination. Hence the disease is robbed of fertile soil and it gradually becomes attenuated. Then comes the period of mildness, and indifference on the part of the profession and the public is manifested. Through this indifference a generation grows. This generation is not protected by vaccination or attacks of the disease or through inheritance. The soil again becomes fertile and malignancy reigns. In times of mildness guard against malignancy. Do not drive people by your carelessness and your indifference to associate themselves with the various "sects and isms", the ranks of which are sometimes crowded as a result of unprofessional conduct. The profession deserves better recognition.

I cannot pass these "sects and isms", however, without a word from a public health standpoint. They do not affect the medical profession as a whole, nor do they lessen the amount of work to be done by the medical fraternity. The individual who advocates the nonexistence of physical disease or pain, claiming only mental aberration or compensation for sin, is a dangerous citizen from a public health standpoint. His ignorance or deceit makes him heedless of health laws and therefore liable to scatter broadcast the germs of any and all contagious diseases. A large per cent. of the citizens are made to suffer, and frequently suffer much from the uncharitableness of a few. Thus do epidemics originate and the medical men are made busy. If the truth of this be doubted simply ask the health authorities of large cities, and the verification will be forthcoming.

As a citizen it is the duty of the practitioner to carefully guard the interests of the community, uphold the laws, and assist the authorities in the proper enforcement of all sanitary and hygienic measures. As a physician he should heal the sick, advise the families of the patient suffering from a contagious disease in special lines of cleanliness and preventive medicines, and instruct them in regard to the duties toward the public. Disabuse them that American liberty means freedom in times of epidemic diseases, and instill into their minds the

principles of that wise opinion of the Supreme Court of the United States which says:

"Liberty does not impart an absolute right in all persons to be at all times, and in all circumstances, wholly freed from restraint, nor is it an element in such liberty that such persons or a minority of persons residing in any community and enjoying the benefits of its local government should have power to dominate the majority when supported in their action by the authorities of the state."

Make quarantine appear a happy creation for the protection of the public health, and therefore not a hardship or a burden upon those who must submit to its rules and regulations. Quarantine immediately after diagnosis, and explain fully its provision. Inform the people how their supplies can be obtained and see that the proper local health authorities give due consideration to the family's wants and needs. This is not only economy but it will save much hardship and often many lives.

That every profession is as its members make it is not only true, but we might go farther and say the child is but the reflection of its teachers in the various crafts. Let the physicians treat any disease with indifference and the public will claim the right to carry out and exercise that same indifference. This has become lamentably true in regard to measles and whooping cough. In these maladies the physician may be called to make the diagnosis, and when the diagnosis is once made his visits and advice are no longer deemed necessary, yet the mortality from these two diseases, in some localities of the state, is twice as large as the mortality from diphtheria, scarlet fever, and smallpox combined.

Where, therefore, rests the responsibility for this state of affairs? Who started the pendulum the wrong way, the physician or the public? The public has become misinformed and ignorant of the dangers confronting it, and therefore it is the victim of the ravages of these so-called mild maladies. What have we as teachers been doing?

Instill into the minds of the people a proper regard for contagious diseases whether quarantinable or not. The child at least demands a fair amount of consideration in these respects. Be fair to the innocent and give the child the advantage of the doubt. Do not allow the death roll to be increased and disease spread while quibbling over some minor point as to the distinctive characteristics of the maladies confronting you. Early diagnosis of these diseases is essential to successful handling and especially is this true when we have specifics in their treatment. The laboratories can be made a valuable aid to diagnosis and the State Laboratory is free to all

physicians and health officers of the Commonwealth. It should be used, when applicable, whenever any doubt exists.

In diphtheria the removal of quarantine or isolation should be made dependent upon two negative cultures. Many states adopt this plan, and it is proving successful. Such methods are strongly recommended by the State Board of Health. It is however, not yet made compulsory. In some localities of the state contagious diseases are constantly present; in other localities these diseases are rarely seen. Investigations frequently show that there is a difference in the relationship between the profession and the public. In one the confidence and mutual support is complete, in the other distrust and dissension are manifest.

Call smallpox smallpox, designate scarlet fever as scarlet fever and not scarlatina, and let diphtheria have credit for its work. A questionable diagnosis should never go unchallenged. The health laws are made applicable to all suspected cases as well as those cases easy of definite diagnosis. The law, therefore, gives the public the benefit of the doubt, and physicians should comply with the law in this respect.

All cases of contagious diseases should be reported in writing at once to the proper officials so that every precaution known to preventive medicine may be exercised. By so doing many localities will save themselves from severe epidemic diseases and the medical profession will gain the confidence of an over critical public. Commercialism is secondary to life and health. Individual notoriety or advancement should be made subservient to the ethics of the profession. Diagnosis of contagious diseases should be honestly and positively made. The principles of preventive medicines concerning them should be freely imparted to an anxious public. Health officials should be encouraged in their work and the enforcement of the law. We should all be men—above the pretty jealousies of the careless or ignorant.

Therefore, we need greater harmony and unity in the profession and of the profession to the public; the proper handling of contagious diseases practically holds the key to the situation.

VARIOLA: FACTS REGARDING ABSOLUTE IMMUNITY BY VACCINATION.*

BY J. P. COX, M. D.,

SPOONER, WIS.

In the following lines I have endeavored to eliminate as much as possible anything resembling a general thesis on smallpox. My idea is to bring out a few salient points relative to the disease as found in northern Wisconsin, and to produce some data relative to the efficacy of vaccination. Laboratory work and differential diagnosis are purposely omitted, on account of the time limit on papers.

From time immemorial mankind has done deadly battle in the suppression of a disease which has left its indelible mark on the fair face of humanity. Variola has never before been so widely distributed throughout the United States as it is at the present time. In many instances the epidemics are limited in extent, and the individual cases are, as a rule, mild. However, in some localities even if the epidemic is quickly controlled, the mortality may be great. The epidemic now raging throughout the country is of the mild type known as "modified smallpox". In treating these apparently mild cases we should not forget that frequently the most virulent forms of confluent smallpox may originate from cases of the mildest character.

The State of Wisconsin has laws which will enable any one who really desires it, to do much toward stamping out this disease.

It is true that in many sections the law relative to isolation, quarantine, disinfection and vaccination, are neither known nor enforced although the State Board of Health furnishes copies of these laws gratuitously to all municipalities.

The doctors are frequently at fault for the spread of the contagion: first, because they may fail to make a correct diagnosis in the incipiency of the epidemic; or, second, if the diagnosis *is* correct they fail to report the cases to the proper authorities and *see* that the laws are enforced. There may be some excuse for errors in diagnosis in cases of the very mild type—cases that are seen by men of limited experience in the treatment of variola. The doctor who has never seen a case of true, confluent, discrete or modified smallpox, may easily make a wrong diagnosis in the first cases of an epidemic.

No doctor in attendance on the first case in a given locality, under such circumstances, can be censured for failing to correctly diagnose

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*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, August 23, 1907.

the disease before the eruption appears; but on the appearance of the eruption the case is altered at once.

No physician is then excusable in making an error in diagnosis. Whenever a patient, no matter of what age, social environment, sex or previous condition, presents fever, with the appearance of an eruption which is papular, and can be rolled between the fingers under the skin, the doctor is justified in causing him to be quarantined until the symptoms develop. Seventy-two hours will usually settle the question beyond cavil.

ETIOLOGY—The etiology of variola still remains a mystery. From the earliest days of the Philistines to the present time the medical man has delved in the depths of the archives for a cause of this most malignant disease. The cause of smallpox is almost universally admitted to be a specific contagion. There are very few persons not protected by vaccination or a previous attack of the disease, who are not liable to be affected by it on exposure. Occasionally an individual is met with who has resisted the contagion to old age. But even such persons are not secure, for instances are on record in which after frequent exposure to the cause of the disease without effect, a fatal attack has at length occurred; and in persons who have escaped the disease in the natural way, it has even been produced by inoculation.

Opinion is not settled as to the period of the disease at which it is contagious; some believe it to be so only after the commencement of suppuration, while others with greater prudence, consider it as capable of self propagation at any period after the first establishment of fever.

It is an interesting question whether any other cause is capable of producing smallpox than its peculiar contagion. It certainly appears often to occur epidemically. After an extraordinary exemption, perhaps for years, a city or district of country is suddenly invaded by it, and continues to be infested for a longer or shorter period, after which the disease again declines and for a long time ceases to be heard of.

Sir Archibald Fielding very erroneously advised us that smallpox is a disease of filth. However, before the days of vaccination we found it thriving just as prolific in the aseptic home of the millionaire as in the humblest hamlet of the poorest mendicant.

CUBAN ITCH—We have heard a great deal of late of a disease dubbed by this very suggestive name. The writer has failed in locating any literature on the subject. We have in Northern Wisconsin

a disease known as "Lumbermen's Itch", which thrives prolifically in a large number of the logging camps.

This parasitic pest is frequently mistaken by the laymen for smallpox. I was recently called into the logging camps in the famous Dietz district to investigate a supposed epidemic of smallpox. I found twenty men suffering from common, every-day suppurative itch. I advised the extermination of the pet of the "Lumber Jack", known as the great American gray black or camp louse, and the boiling of all clothing in a strong solution of lime and lye. A generous application of plain carbolized sulphur ointment resulted in the recovery of all cases and the suppression of the smallpox scare.

If there is a disease known as "Cuban Itch" it has escaped my personal observation, and I have been unable so far to procure any data relative to its existence.

VACCINATION—Does vaccination render the subject absolutely immune from smallpox?

Speaking from my own personal experience alone, I do not hesitate to answer in the affirmative. I think one of the proofs pre-eminent as to the efficacy of vaccination is the fact that vaccination is ineffective following a case of smallpox.

Vaccination should be performed only under the most aseptic conditions, and every case can be made aseptic. The people fear vaccination on account of the results obtained by some operators who absolutely disregard the technic of the aseptic surgeon. Human ingenuity has failed so far to find a better preventative of variola than vaccine virus incorporated into the system in an aseptic and intelligent manner.

A law was recently passed in Minnesota doing away with quarantime and enforcing compulsory vaccination. We await anxiously the outcome of this experiment. It seems to me that the abolishment of quarantine does away with one of our greatest safeguards in stamping out this disease.

It is a deplorable fact in matters of public health, that, only to a very limited extent at least, can our ideals be immediately realized, that our scientific ideas and procedures must wait upon a not over-enthusiastic public sentiment.

It is an entirely acceptable truth that vaccination will prevent the spread of smallpox, and that with proper vaccination universally applied, the disease may be abolished without recourse to any other agency.

However, the Minnesota State Board of Health in advocating the abolishment of other than the ideal and specific means for the eradica-

tion of smallpox, may have reckoned without their host. They have taken for granted the *acceptance* of the doctrine of vaccination by *all* the people, and an appreciation of its vital importance by the vast majority. The fact of certain immunity through vaccination is established, but not entirely accepted, and, as Osler rather pessimistically remarks: "The order of mind which leads to the denial of the merits of vaccination will probably never disappear from the human race."

Until the opposition and non-belief as to vaccination cease, the abandonment of quarantine and other effective means for the prevention of smallpox is, to say the least, premature.

Quarantine is one means of prevention and until we are able to universally employ other means, we must cling to quarantine and gratefully accept the protection it affords. To abandon quarantine at this time is taking too great a leap in the dark. Is it not wiser to employ *every* practicable means to protect the people against themselves? Vaccination and quarantine should continue to work hand in hand to afford the maximum of immunity.

During the present epidemic in Northern Wisconsin, the writer has seen in all about forty cases. The epidemic was confined largely to the lumber camps. Ten cases were discovered in camp No. 8 of the Willow River Lumber Co. These cases were at once isolated in an improvised pest house where they were treated until released from quarantine.

There were forty-two other men in this camp all of whom were at once vaccinated. After vaccination none of these forty-two men took the disease although all were equally exposed to the contagion.

In camp No. 10 we found one case. There were forty-five other men in this camp. All submitted to vaccination with the exception of three, two of whom were subsequently taken down with the disease and removed to the pest house. The third one "jumped camp" and later was arrested, vaccinated and returned to camp.

In No. 11, there were fifty-six men, all of whom accepted the offices of the vaccinator. This camp was quarantined for ten days. The men in camp No. 11, suffered the same exposure as all of the other crews. However, no cases were reported from this quarter.

In 1880 an epidemic of smallpox broke out in the camps of the Chippewa Lumber Co. on the Moose River. We found twenty-eight cases distributed among twelve camps. At this time, you will remember, there was no such thing as glycerinated lymph, and very little was known as to the proper sterilization of the points and virus then used. However, vaccination as performed in the crude, non-aseptic manner

of those days, seemed to establish perfect immunity against the ravages of this malady.

The absolute immunity to smallpox from vaccination has been demonstrated very conclusively, but the manufacture of vaccine should be more carefully supervised by the government in order to prevent the distribution of impotent virus.

TREATMENT—In few diseases has medical opinion undergone a more beneficial change than in this. Under the impression that the eruption was an effort of nature to rid the system of noxious matter, which if retained must prove fatal, it was formerly deemed important to favor instead of suppressing the process.

It was known that heating and stimulating measures promoted the eruption. Hence arose the practice of sedulously excluding fresh air from the sick room, heaping up bedclothes upon the patient, giving him hot drinks, and not infrequently administering stimulants.

Now that the greater danger in smallpox is known to arise from the copiousness of the eruption, it will be readily understood how fatal must have been the disease under the old system of practice.

To Sydenham belongs the credit of changing the current of medical sentiment in this respect. Having practically ascertained the favorable effects of an opposite plan of treatment, he recommended it in his works, and refrigerant measures are now universally admitted to be the most efficient in the cure of the disease, as they certainly are the most agreeable to the patient.

As the course of smallpox cannot be abruptly shortened, and as the danger arises partly from the reaction of the copious eruption upon the system, partly from intercurrent inflammation of the lungs, larynx, etc., and partly from the exhaustion consequent upon the long-continued irritation and discharge, it is clear that the important indications of treatment are, not to attempt by violent means to break up the complaint, but (1) to moderate the amount of pustulation without impairing the strength; (2) to obviate in all stages the effects of inflammation; and (3) to support the system when requisite in the advanced stages.

The comfort of the patient also should be studied, and means employed to relieve those painful annoyances, and allay those nervous disturbances which are so incident to this complaint.

The treatment is to be conducted upon general principles. There is no specific remedy in smallpox.

I have endeavored to treat each case along these lines, meeting each condition or complication with the procedure indicated. In all cases the bowels are kept open and aseptic, with large doses of a

saturated solution of magnesium sulphate, containing a minute dosage of carbolic acid. Fever, pain and delirium are controlled by the remedies called for in each individual case. When the suppurative stage sets in we must deal with a general septic condition.

Innumerable methods have been used to prevent the fearful scarring seen in a large number of cases. If the vesicles are thoroughly and frequently bathed in a solution of formalin, hydrozone and bichloride, followed by a generous application of ichthyol ointment, there will be but very little pitting or scarring in the majority of cases; but, to obtain favorable results, the treatment must be repeated frequently.

DISINFECTION—During the past five years I have discarded the use of other disinfectants in favor of formaldehyde and sulphur.

The usual method employed in disinfecting the lumber camps is to burn about 10 pounds of sulphur supplemented by the evaporation of about 5 pounds of formaldehyde in each compartment, using the usual precautions as to windows and doors. All straw ticking is burned and blankets and other bedding are boiled in strong lye water. Floors, tables and benches are scrubbed in a like solution, and after twenty-four hours, bunks and walls are thoroughly whitewashed.

This simple method if carried out conscientiously will usually produce the desired results.

DISCUSSION

DR. H. J. ORCHARD of Superior:—I have listened with a great deal of interest to Dr. Harper's paper, and I can only verify a great number of the statements that he has made, and can add nothing to them.

Physicians will often delay in reporting contagious cases. As the doctor said, they will be late in making their diagnosis, fearing that they ought not to quarantine the people, doing it to protect their patients and not the public. Since I have been health officer—it may not be so down in the other parts of the state—but here we have known the physicians to hold cases of diphtheria in which there was no question about the diagnosis: the laboratory tests were not necessary, and the membrane was so marked on the throat that a student could tell that it was diphtheria; and yet those cases have been held from three to four days without being reported. Of course these men are our friends, and yet there ought to be, I suppose, a prosecution to make them more prompt in reporting. It is rather difficult to do that.

But the spread of contagious diseases is not always due to the physician. I have a number of cases now, down in one locality, which spread from a mild case of diphtheria. No physician had been called until this child was just about well, and the report came from the neighbors. We investigated

and concluded, or thought, that it was diphtheria, and quarantined the patient, but within the next few days the neighborhood had been well infected, and we now have five or six cases there. Of course that could not be attributed to the physicians, and you could hardly blame the people, because their children had been subject to tonsillitis, had had a number of attacks, and they thought that this was the same thing.

The public is so used to smallpox in this locality that they can diagnose a case almost themselves. When in boarding houses, lodging houses and hotels, they see a case that shows symptoms of smallpox, they will send the man up to a physician and instruct him not to mention the place from which he has come, and let him be carted out to the isolation hospital, so that if he is broken out enough, or the disease is far enough advanced to infect the room in which he was, the department has no chance to fumigate the quarters and prevent the spread of the disease. In a great many cases of diphtheria a laboratory test is almost absolutely necessary to determine the diagnosis. This year we have had a great number of cases—they were laryngeal, and the membrane did not show in the throat at all; and, of course, it was quite difficult at the start to diagnose them. If we had a laboratory and examined all suspicious throat cases, we would be able to determine the diagnosis, but we have no such laboratory. We have access here to the state laboratory, but the train service to Madison is such that unless we got our patient about the time the train left at 4 o'clock, or before, and got a specimen of the membrane off on that train, it would be forty-eight hours or more before we could get returns on that culture, and by that time we would be able to make the diagnosis almost without a culture.

Of course, if all cases of contagious disease were severe, and there were no mild cases, we would have much less trouble in controlling the epidemics and their spread. We have had quite a number of contagious diseases here, but we are infected continually from the surrounding towns by men coming in from camps. We often have them come down on trains, take the street car and ride out to the hospital, and all around, with the throat so full of membrane that they cannot talk, and sometimes can hardly breathe, and of course the public is infected.

Where there is the slightest doubt that a given case is contagious, it should be reported and quarantined, because it is much better to quarantine one that is not diphtheria or other contagious disease, for a few days, until we are sure, than expose the public.

I think there ought to be a system, especially in localities like this—whereby the health officer is perhaps a member of the county or some other board; each such officer to be registered, so that all health officers would know the health officers in adjoining towns. Then when we get a case of contagious disease from one locality, we could notify the respective officer, because we often get bad contagious diseases coming in from these towns on the trains, and there is no question that other members of the family are infected and will have the disease. Of course, if in cases of diphtheria we could notify them and have a physician go out and give them a preventive dose, it might prevent the spread in those localities.

Since I have had charge of the office here, I have endeavored to be as lenient in my quarantine as possible, and still be safe to the public. It has

formerly been the custom even when a contagious disease developed in some of the large hotels, to quarantine the whole hotel, and we have had whole flats quarantined for one case of contagious disease. But we have had a number of these cases in hotels, and of course did not keep it secret; necessarily the guests of the hotel would know it; but we have removed those that were exposed, and the infected case, fumigated the room or closed up that part of the hotel, and have had no bad effects from it. In flats where there have been a great number of tenants, we have pursued the same course.

DR. NELSON M. BLACK of Milwaukee:—I wish to thank Dr. Harper personally for this very excellent paper. It strikes me that too much stress cannot be laid upon certain points brought out in the doctor's paper. One point especially, that the treatment of quarantinable diseases is in reality secondary to the protection of the public, is well taken, and I think should be emphasized. If a medical man is honest and thoroughly conscientious in the practice of his profession, he will in every way go to the full limit in his effort to protect the public at large. This will in many instances primarily work him harm; but in the long run such action on his part, I am sure, will redound to his credit, and result in the increased confidence of his patrons. So-called medical men who will stoop to give a wrong diagnosis to contagious disease, with a view to enlarging their practice, should be dealt with in the severest manner. Laws are made to protect the public from such wrongs. Why are the laws not enforced? It is the physician's duty to report these cases to the proper officials, and then his duty in that direction ends. It lies with the health officers to enforce quarantine. It strikes me that as the law protects a physician in his reporting such cases, he need have no hesitancy in doing the same, as the protection it will afford to the public at large will in the end redound to his credit.

DR. JOHN BAIRD of Superior:—Just one point in regard to quarantining. Where the public have means at their command whereby they can protect themselves against contagious diseases, I believe quarantine should not be enforced. For instance, in the case of smallpox, the public can protect themselves sufficiently against it, so that there will be no danger whatever, if they will make use of vaccination. In these days when we have such an outcry against vaccination, why not let smallpox cases go without quarantining and see how soon those who now object to vaccination will become firm believers in it? I understand that in the state of Minnesota, after January 1, 1908, there will be no quarantine of smallpox. I believe that Wisconsin should do the same thing.

DR. EDWARD EVANS of La Crosse:—I would like to endorse the remarks of the last speaker. I think it is about time to do away with this matter of smallpox quarantine. If there is one scientific advance that the profession can make as a body, it is the abolition of the smallpox quarantine. If we put it up to the public that they must protect themselves, there will be little trouble about vaccination and quarantine; and inside of five years there would be no need of any quarantine, that is—it would be absolutely uncalled for, because every person would be vaccinated. As soon as the public feel that they must protect themselves against their neighbors, they will see to it that their neighbors observe the law. So I would like to see—perhaps not just now, but very soon—this Society go on record as advocating the aboli-

tion of quarantine for smallpox. It is absolutely unscientific and unnecessary, and we have known that for a century.

DR. O. H. FOERSTER of Milwaukee:—If you are going to put this question of raising quarantine up to the public, why not give the public a chance to see that they are absolutely vaccinated, after you scarify them and put on some virus. I have seen many cases of smallpox in which there is a history of vaccination, and when you look for the vaccination scar it is not there; and on close questioning you will find that the patient either had a spurious vaccination, or a simple raspberry excrescence, or there was no "take" at all. I think vaccinations ought to be followed up, and in that way you are sure of securing immunity against the disease, and you will not cause a lack of faith in the public.

DR. JULIUS NOER of Stoughton:—I did not hear Dr. Harper's paper, but I want to endorse the statement made by the gentlemen here, and by Dr. Evans, regarding vaccination. I think the time has come when we ought to stiffen the backbone, if necessary—although I do not think that it is necessary—of the health department, and support it in the advocacy of the abandonment of quarantine for smallpox. I think that at the present time quarantine is practically a farce. I know that within a week two men in my town told me that they did not report smallpox cases. They said it was no use, because a lot of cases are walking the street with smallpox who never consult the doctor.

Now, I am sure that there are a large number of smallpoox cases right in our own town to-day, and right in our vicinity, which have never been reported, and hence cannot be quarantined. Quarantine for smallpox of the type now usually seen is not effective because only the severe cases are, as a rule, seen by the physician and reported, while the mild cases are allowed to walk about and spread the disease.

DR. HERMAN GASSER of Platteville:—As long as we do not have compulsory vaccination throughout the state, quarantine is an absolute necessity, and I want to go on record to that effect.

About five years ago I had the opportunity to observe in a neighboring township, where only a few were vaccinated, an epidemic of smallpox. Quarantine was not enforced. The disease spread like a prairie fire. This was in January. One practical German farmer deliberately visited his neighbor so that he would get the disease before spring ploughing came on. He was successful. The disease was generally mild. What is of great interest to me is the fact that every woman, so far as I knew, aborted, if pregnant at the time she had the disease, except one. This one was in the beginning of the ninth month of her pregnancy. At full term a seemingly healthy child was born. It was soon noticed by its parents that the head developed with abnormal rapidity, and the child died eight months later of hydrocephalus.

This local experience impressed itself on my mind so deeply that I saw the meaning of vaccination in a new light, and that is why I am also uncompromisingly in favor of a strict system of quarantine for the protection of the unborn in a community that has not the least conception of what it all really means.

DR. WILLIAM B. EICHER of Boscobel:—The point brought out by Dr. Foerster I believe to be very important. I think we have all seen cases in

which vaccination was made and there was no "take"; and the reason that the parties had not followed out the proposition to a successful end was because of their lack of faith in vaccination. We all know we cannot guarantee a take at the first effort every time, due, probably, to various reasons. Now, if the profession would take a firm stand for vaccination, for the scientific and certain benefits of vaccination, by paying less attention to quarantine, I am quite sure it would add a great deal to the faith among the people in vaccination. There is a prevailing skepticism on that question among the people, and I believe it is largely due to the fact of quarantine regulations with reference to smallpox.

DR. H. J. O'BRIEN of Superior:—The doctor has so thoroughly gone over the various branches of smallpox, that I will occupy your attention but a few moments.

It is my observation that the treatment of any form of contagious disease requires more diplomacy and tact on the part of a physician than the treatment of non-contagious diseases, owing to the fact that he has to take into his confidence a great portion of the public.

Diagnosis of smallpox is not difficult, and it is my belief that physicians have seen fewer typical cases of smallpox in the city, than would be first thought.

In the country you have different experiences to contend with. The physician has a greater opportunity to observe the individual case in the city; the case in the city is usually turned over to the health officer or to his assistants, and as a rule the physician who was first called does not have the opportunity to observe the different symptoms in the course of the disease.

As regards vaccination, there is hardly any reason for taking up time in discussing that. As to the desirability of it—we are all a unit on that, I assume. The main point, as brought out by one of the gentlemen who discussed the matter, is the necessity of the physician following up his vaccination and ascertaining if the symptoms that are necessary for a thorough vaccination are manifest in the respective cases. If that were followed up, in my opinion, there would be less skepticism as to the value of vaccination as a preventive. Many of us vaccinate and do not see the patient again. It is our duty, if it has not taken, to see that case again and revaccinate. But we do not do it, and in that way many of us lose sight of cases that report to the laity as having been vaccinated, and yet subsequently take smallpox.

Abolishing quarantine as a measure of prevention is, I think, not good, and for this reason: in my opinion, we as physicians can hardly say that we should throw a responsibility so great as that upon the public as to allow those infected to intermingle with those who are not, and by letting them have the scourge, demonstrate the desirability of vaccination. I think we can do a great deal better by discussing this intelligently, following up our vaccination more closely, and taking it up in a body of this kind more persistently and scientifically.

As to the Cuban itch, the cases I have seen have been easily differentiated from smallpox, and it is the alarmist who has not taken the time to study the true symptoms in the case, who is in doubt.

As to the treatment, that is so universal that I have nothing to add.

DR. W. T. SABLES of Sparta:—Regarding vaccination, I have kept in the past few years a record of upward of a thousand cases of vaccination in the state children's hospital. Every year we vaccinate from one hundred and fifty to two hundred children by primary vaccination. Now, under those conditions we have charge of them during the whole period, and if a true vaccination scar has not appeared, we revaccinate until nothing takes. Such a child is then absolutely immune.

There is no question but that, if at the time of the secondary effect of the vaccination, when the lymph is well spread about on the arm, care is taken not to scratch the arm, or have it reinfected, and no other infection does take place, your primary vaccination is very simple, and I never saw one of the thousand cases considered at all serious.

Regarding treatment, Dr. Cox sounded the keynote when he said quarantine should be retained until such time as compulsory vaccination could be established.

As a member of the board of medical examiners, I am very skeptical regarding the people's support of the laws of the state. The average citizen is not in sympathy with a man trying to enforce a law; his sympathy is all on the side of the fellow who is down; and as American citizens the laxness with which we consider the law to-day is one of the most important problems that is now staring us in the face. Members of the board of health have had the same experience as we have, and it is almost impossible to get a jury in a justice court that can see anything wrong in an insane man short of his actually killing, or see anything wrong in the actions of a quack short of his poisoning another man to death. The public sympathy, as I say, seems to be with the fellow on trial. Doctors should help the health board and board of examiners on every occasion.

We had a case on trial in La Crosse recently which lasted two days, and only two or three regular physicians came in during the time of the trial, while the churches were there en masse to support a Jap "Chiropractor," who was practicing "Chiropractice," and who was being "Persecuted" for establishing a new cult. It is sickening to see this popular sentiment. What the remedy is I don't know; I wish it was vaccination, made compulsory.

In addition to Dr. Cox's paper on Treatment, I wish to report a case. One of the worst cases of smallpox I have had was in a man from whom five years previously we had removed a tuberculous kidney; but he was in very good physical condition; he had never been vaccinated and he had the old-fashioned kind of pustules nearly half an inch high and as thick as they could stand. He said his skin was so tight he thought he would have to get on the outside of it. Hypodermic injections of morphine relieved him, and I kept him in the red light, and there is not a spot or a scar on the man (so often left to mark such severe cases). There is no evidence showing that he had smallpox; and yet I never saw a case so full of pustules nor one so sick as this man was. Of course we have literature on this phase of the subject and I believe in it. No one case proves the rule but it makes a good guide for the treatment of the next case.

SECRETARY SHELDON:—Have you anything to say about the minutiæ of the technique of vaccination?

DR. SARLES:—We do not use an antiseptic wash on the arm. The nurse prepares the arm simply with warm water and soap—just washes the arm and dries it with a piece of gauze. Then I always put the lymph on before I scarify the arm. I drop the lymph upon the arm and simply scarify the arm through it, so that I am satisfied it will take, without getting bleeding, and let the patient go without any dressing whatever—simply airdry it thoroughly. The dressing need not be put on at the first scarification. The dried serum and vaccine form an impervious dressing. It would be four days before any secondary infection would show at all. Then examine the arm, and if it is badly inflamed I often put on a moist gauze dressing, just to protect it, and reduce the infection. Cases requiring this latter treatment are rare.

QUESTION:—What would be the objection to the use of the gauze immediately?

DR. SARLES:—I think it absorbs part of the vaccine material and causes it to stick to the gauze, causes itching of the arm and a rupture of the scab just when you don't want separation. Wear clean underwear and a loose sleeve, lined with sterilized gauze if you like. but not bandaged or strapped on. I do not see the need of anything further. A shield might be worn, but the shield is often misplaced, shoved up against the vaccination, and thereby does more harm than good.

DR. WILLIAM B. EICHER of Boscobel:—With reference to compulsory vaccination, I wish to say that my sympathies are not strongly enough with paternalism in government to favor compulsory vaccination, but I would like to see some change made in the quarantine law that would give the people a chance to realize that the medical profession and the state have absolute faith in vaccination.

DR. E. L. BOOTHBY of Hammond:—I have been mixed up with contagious and infectious diseases to a certain extent, and I wish to stand behind Dr. Cox in the protest which he made when he read his paper, against the raising of quarantine in smallpox cases. I think it is a mistake, and I think time will prove it to be a mistake. We are not ready for it yet, and I doubt very much from what I can read of the temper of the people, if the time will ever come when it can be safely done. I could cite to you instances in my experience that would prove it. I do not care to enter into a discussion of it, but I am pretty well convinced that it is a mistake to raise the quarantine. I want to make that statement and want it to go on record, and I am perfectly willing to stand back of it.

There has been very little said in regard to the technique of vaccination. I am one of those who sympathize with the people who object to vaccination, simply because there has been such a vast amount of abominable work done by doctors throughout the country. Their technique has been faulty and the results have been infection. I never vaccinate a case of late years without thoroughly sterilizing my scalpel, or whatever I break up the skin with, every time I vaccinate, even if I have forty cases at my office at a time. I do just the same as you do with your surgical cases, sterilize the instrument thoroughly. I believe that it is just about as necessary to sterilize the arm of a vast number of the subjects, as it is to sterilize your instrument. I do not believe any patient comes to you with sterile clothes on, and I do

not believe in covering up that recent vaccination with a dirty shirt, or any shirt, even if it looks ever so clean. It may be infected—you don't know. And I believe that a large part of the objection of the people against vaccination is caused by the carelessness of the doctor in his technique—it is not perfect. I think for fifteen years I have seen no case that showed any evidence of septic infection. I have seen a great many cases of vaccination that were not perfect.

I want to thank Dr. Cox for speaking just a word in regard to the amount of vaccine lymph that has been put upon the market that is entirely ineffectual—good for nothing. I would about as soon use glycerine alone as some of this glycerinated lymph.

DR. C. A. ARMSTRONG of Boscobel:—In the matter of vaccination, the simpler the outfit you have the better. A little sterile cotton, sterile gauze, a little adhesive plaster, the needle that comes with the tube, and a match, are all you need. Wash off the arm at the site of operation with a little sterile cotton, immediately scarify it and endeavor not to have it bleed, place the lymph upon the surface, and if you are in your office and have a compressed air machine, take pains to dry the serum thoroughly. The match should be lighted and the needle cleaned before anything is done. Immediately after it is thoroughly dried, place sterile gauze on it and a couple of little cross straps of adhesive plaster; tell the patient to let it alone for three days; and then look under it, and if it is all right for six days, then you will never have any trouble with it.

DR. G. PERRY of Amery:—An important matter I think is this: I thought of having printed for my own individual use, vaccination certificates. I believe that the health department of the state should have printed for the use of physicians a blank for vaccination certificates. The reason is that our work would be more uniform and accurate, and it would insure our following up the cases, revaccinating those that need it, and also providing a means for tracing if necessary, each individual's work. The trouble with vaccination is that it is often very carelessly or inadvertently done, and many times never looked at again. The arm is never looked at after the doctor or other persons have seen the individual. The trouble is that the chain is no stronger than its weakest link, and careless individuals do work on which the whole profession is judged by the public. I have never learned that such forms are furnished, but I think that they should be.

Then the other matter—about secondary infection: I believe that the average physician is more careless in his instruction to the patient about taking care of the arm later, than he is in his technique of vaccination. He scratches the arm and gets secondary infection, and then lays it to the vaccination.

DR. J. B. TROWBRIDGE of Hayward:—I have not made a special study of smallpox and cannot offer anything new. The matter of vaccination I do not think needs any defense among a body of physicians who have had experience. I might say, however, that during the last few years I have seen over two hundred cases of smallpox and made notes of the cases with reference to vaccination, and of the number that I have investigated in that way, only two out of something over two hundred, claimed to have been vaccinated before, and one of those thirty-five years before; the other one was an Indian

who claimed he had been vaccinated a short time before, but he did not have the disease very hard, and probably was not thoroughly vaccinated. The others did not even claim to have ever been vaccinated. At the same time I have seen, as all of you have, repeatedly, people who have been vaccinated, nurse these cases right through, several of them, and escape the disease in every instance.

With reference to raising the quarantine on smallpox, I am quite inclined to think that it is a good idea to follow the example of our sister state Minnesota—not perhaps to the extent that they have there, because it does seem as though a case of smallpox ought not to be allowed to parade the streets and infect the whole community, even if they refuse to be vaccinated; but if we had efficient health officers, as was suggested by Dr. Evans, of La Crosse, if we had officers of that kind who were paid to look after the health of the community, cases of smallpox could be isolated, without being strictly quarantined. Some kind of sign might be put up to warn the public that there were smallpox cases there, and that, I think, would be better than to enforce strict quarantine against smallpox, when we have such a sure preventive as we have in vaccination.

DR. O. H. FOERSTER of Milwaukee:—One thing that should be considered is the teaching in our medical schools of the diagnosis and treatment of contagious diseases. How many men before graduation have seen a case of smallpox, and how many had actual experience with a case of diphtheria? Hundreds are graduated every year who have never seen a case of scarlet fever. They go into practice, and how are they to make the differential diagnosis?

I lately saw a physician who asked Dr. Patek and myself what we thought of the intramuscular injection of mercury in cases of syphilis. He said he had wonderful results, and that the scabs fell off in the course of a week. On looking into the matter we found that what he had regarded as syphilis was smallpox in a modified form. It went through two families. Such conditions ought not to exist.

I would like to say just a word in regard to the technique of vaccination, especially in little children. Use a 15 per cent. solution of caustic potash to dissolve the superficial layers of the skin. Thoroughly wash that off and vaccinate through this exposed area.

DR. A. F. FUCHS*:—To my notion, a discussion of the subject involves a knowledge of matters with which not one per cent. of physicians is acquainted. So far as I know I stand upon a footing that is singular among the physicians of this state, and—if I may take medical journals as a guide—it also is unique among physicians of the whole nation. In effect I am a Pariah: I am of you, but not with you. I am sorry that this is so—sorry for the people, for the state, and last, sorry for you that I must tell my fellowmen some wholesome truths regarding the profession's doings.

Medicine is the healing art; the physician earns his living by practicing this art, and his duty is to his patient solely. To society, or the public, he owes no duty other than what all men owe: honest work, according to the best teaching of his craft. There is a calling in near touch with our art,

*Dr. Fuchs' discussion, presented in the form of a paper, was not read, but referred for publication.

wherein the duties are to the public as a whole. However, Hygieniker von Fach there are none in state or nation. Dr. Harper has confused the duties of the physician with those of the hygienist, because he presumed to know something about a subject he never gave systematic study. His presumption is pardonable, inasmuch as it is but an expression of the general presumption so strongly in evidence in public life. The regrettable thing about the business is that we physicians sit quietly by while one of our number—snatched from among us by grace of appointive power—tells us what we could do, should do, and must do, if we wish to be of the elect. We are to take for granted that supreme knowledge and power, and divine insight come to him with the robes of office. He speaks with authority, with the finality "that doth hedge about a king." In a moment he becomes the maker of the law, its interpreter, the accuser under it, and the court of ultimate adjudication. All opinion not conformable to his belief is anathema, and his belief, as to the rationale of certain phenomena, is demonstration. This, his plenitude, he proclaims himself. Some give assent by silence, others by loud acclaim.

In what I have just said I may have expressed scorn, but it is scorn for the shams that parade as health officers, and have M. D. attached to their names. If a brief statement of facts, and reprobation of doings not in accord with justice and sound sense is satire, then is this satire. A frank expression of opinion on any subject of general importance is certainly commendable. I can see nothing praiseworthy, however, in using public money and position for the promulgation of personal views. And further, I consider it highly blameworthy to use an official position, directly or indirectly, for the purpose of branding men as venal, if certain opinions are not subscribed to. To suggest to the people that their physicians, for the purpose of gain, seek to spread disease, is about as near stretching officialism to the breaking point, as can well be imagined. Faults we all have aplenty, and many of us have all too little knowledge, but I verily believe there is not a man among us who for gain would knowingly expose the well to the dangers of infection. Others may laugh against the vaporings of the annointed, or enter no protest and go through the farce of conforming to foolish edicts. I prefer to give an account of myself, and to demand an account from these officials when they step among us with the lash. I am free to say that this is addressed to the physicians in general, rather than as an answer to a particular man's argument.

The physicians must certainly have a notion of the fitness of things; a notion of the comparative value of certain procedures employed to influence similar conditions, with which we have to do in our avocation. Note the infinite care you take as conscientious surgeons and obstetricians. Scrubbing of hands and field of operation, washing and rewashing in antiseptic solutions, alcohol and sterile water. Smooth, highly polished instruments that you keep scrupulously clean, subjected for many minutes to steam or boiling water; not to speak of the care, control, and checks exercised throughout. Consider all this, and ask how it was that you came to your present, very satisfactory, methods. Contrast with this, your attitude in relation to the common infectious diseases, and their prevention; your utterances in regard to the feasibility of "stamping them out"; your doings in the way of disinfection, touching off a bit of formalin, and calling things clean. From my viewpoint, Mrs.

Eddy is a paragon of truthfulness and accuracy in her "Absent Treatment" as compared to you. You accept to the full the necessity of doing all these things—boiling, scrubbing, washing—to prevent surgical infections, then, as soon as you have to do with the agents of the so-called contagious diseases, you talk another language. Either you wilfully misstate, or—unconsciously—are practicing self-deception, or you do so because of ignorance. There is not a single surgeon of repute who would to-day dare to suggest reliance upon a serum, vaccine, antitoxine, opsonin, and what-not-else, as a preventive against, or cure for septicaemia, tetanus, anthrax, erysipelas, nosocomial gangrene, wound-diphtheria or a local tuberculosis, or aspiration-pneumonia. Nor does he seek to disinfect the room in which he operates, or the spectators, who have just come from street car, railroad car, automobile or buggy, with all manner of microbes mingled with the dust they have gathered on their journey. He confines his efforts strictly to the field his knife is to invade; to the hands, instruments and all material that is to come in contact with the wound.

Surely you do not hold that the agents producing your surgical infections are other than, or of a different nature from, those of the common infectious, or so-called contagious, diseases? Judging from your attitude while about your work, you believe only in contact infection. Further, you don't believe for a moment that one attack of your surgical infections has *immunized* your patient. You know it has not. What is the internist's view? He seems not to have profitted by observing his cases of infectious disease in the light of the surgeon's work on the human body. He still clings to the ipsi dixit of Sydenham and the other "Fathers of Medicine," and believes that one attack of the contagious diseases protects the human organism against a second attack. He goes further, and announces vaccines for all manner of infectious disease, notwithstanding the fact that he positively KNOWS that with a single exception, such infectious diseases occur again and again in the same person. I speak now of acute infections, and of such diseases of which the germ has been found. He still clings to the musty traditions and customs of the past and believes in quarantine, driving out of devils with sticks, that germs are conveyed by clothing or any other way for hundreds of miles, a body exhumed after being in the ground many years, and infecting well persons. All this he predicates of the germ which he doesn't know, herein verifying Peterson's observation: "Our Art clings to Mysticism." He goes a step further, and here he goes not alone, but hand in hand with the specialist. He advocates the methodical examination of school children, by appointed doctors. I do not call him *physician*, who would go through the farce of *examining* 500 school children once a week for $50 a month. That would be 2½ cents for each examination, which, to my way of thinking, would be entirely too much money for the time that could possibly be devoted to each child. Allowing half a minute for each examination, over four hours would be taken up by the 500 children. What a genius, or specialist could learn by half a minute's examination, I do not know. Speaking for myself, I could learn nothing as to a child's health. But, let us draw a veil over these aberrations, and devote a few words to my position on the point at issue.

I postulate that in not one of the following diseases has it been shown that immunity is conferred by one attack, or by any vaccination, serum or other means: variola, measles, scarlatina, whooping cough, chickenpox, or

mumps. Evidence, and I mean positive evidence, cannot in the very nature of the thing be brought forward. All authorities are at one in saying that second, and even third attacks have been observed, and are matters of record. Furthermore, recent years have abundantly shown that smallpox more than any other disease varies in all its manifestations. I personally in one family observed eight cases of smallpox. One of these showed but a single pustule, and that on the leg. From this minimum up to discrete eruption over the whole body, there were all manner of gradations. Again: Daisy W. walks into my office with a marked papular eruption over the whole face. This was on a Monday. Sunday she had been to church with the pox well out, and for three or four days preceding had been on the streets and out shopping. Ordered home, the other members of the household were at once shut in. A brother was already complaining, and six members of the family rapidly took sick with the typical aches, fever, and shotty eruption on forehead. Only in Daisy was there any notable pustulation; only a few isolated pustules in two others. The father complained much of the pains, and presented the least eruption, merely papules. A brother, who had mixed with the family before this, was allowed to go at large and attend to his business. Not a member of these two families had even been vaccinated; not a person, of the two or three hundred with whom D. had come in close contact, took sick. No precautions were taken, no one vaccinated. Wm. S. walked into my office and asked the nature of half a dozen papules on forehead. No headache, not sick. Acne, he was told. He goes to the house of his brother-in-law and stops there for a number of days. Am called to attend the complaining children—two boys. Shotty eruption on forehead of one, the other febrile. Three other children were at once vaccinated, including a babe of some three months. All showed papulation, very little vesiculation, no pustulation whatever. The babe: pustulation from head to foot, not a square inch of skin free, confluent in the face. Father and mother escape, and no vaccination. The neighbors, who had been in closest contact—running in and out—before my call, remain free. No vaccination, no disinfection farce, and no information spread broadcast. Babe had no secondary fever and made smooth recovery; a few scars about nose. She was truly a sight to behold. Myself: variola sine eruptione, while attending first family mentioned. I had been vaccinated (good pustule, after five successive failures in Chicago, 1880, last) three times.

In the light of this, my personal clinical experience, what am I to conclude, knowing that of the community in which these cases occur not five per cent. are vaccinated?

Of measles, three cases of second attack, two of these observed by me personally and not to be questioned. Marcia D., first attack, 1896, second, 1905; Sara D., first attack, 1897, second, 1905.

Scarlatina, personal observation of very many cases, all manner of gradations of severity. Typical tongue with hardly noticeable angina, one day febrile, no rash. Rash, not a trace of angina, barely febrile, desquamation. Rash, afebrile, no angina, desquamation. Rash, typical tongue, no fever, no desquamation, no angina. Case: I. C., female, age 6, older sister sick with rash, no angina, typical tongue, just febrile—temp. 100, next day normal temp., and so remained for a week with no visible rash, then fine desquamation set in. About tenth day after my first call I was called again. Rash,

no fever, no angina, desquamation in large flakes. Again, two cases of severe scarlatinal nephritis, no fever, no eruption.

No comment is needed, particularly when about every second person you meet on the street during an epidemic of scarlatina has a "frog in his throat." Specialists, particularly dermatologists and neurologists, may be able to diagnose smallpox and scarlatina when there is no eruption and they do not come into their office to be diagnosed. I infer that innumerable cases walk the streets and never come under the observation of the physician, particularly when time and again parents bring their children to me and want to know what is the matter? The skin is peeling in big flakes.

To conclude: Man is the creature, and the product of his environment. The history of plagues and the diseases to which he is subject, and his battle against them, is the major part of Kultur-history. Man has in the past adapted himself to diseases by virtue of the fact that he has again and again been scourged by them. The weaklings have been weeded out, and those only have remained who were fit to cope, and these have brought forth young, who again, in their turn, were subject to the scourge, again the gleaning, and again the mating of those who survived. Thus, diseases once the terror of our forebears, are now only of historical interest to us, or of interest because they scourge other races and peoples. The germs that caused them may still be epiphytes upon our body, or they may be lodgers within our intestinal tube.

Man has a mechanism wherewith he overcomes, more or less successfully, an invasion of his body by micro-organisms. This mechanism is the product, not of the micro-organism that invades, but of the human organism that is invaded. This mechanism is strengthened by use, and can only be strengthened by use not merely individual use, racial use is the great factor. Barring intercurrent, or superimposed infection, or the insidious undermining of the health by intoxicants, great privation or insufficient food or deleterious drugs, the human organism by repeated battle, will at last react but very faintly to germs that erstwhile gave it much trouble. This does not mean that then, when the oreature Man, has reached this consummation, he will be free from disease. Let the bacteriologists, or the searcher after serums, vaccines, and opsonins, not deceive you with their Utopian dreams; remember that again and again and yet again you have been promised specifics and panaceas. Remember that again and yet again, health officers who have never studied hygiene and have talked of classing the eruptive fevers with skin diseases, have repeatedly proclaimed the "stamping out" of disease, so comparatively easy to do, and that they had found the source of a given epidemic of scarlatina, typhoid, diphtheria, variola or measles in a certain milk-supply, bakery, water or sewer, when they had not a particle of evidence to show for their contention. In the very nature of the thing they could not bring evidence, they had only vague beliefs or suppositions. Of the many thousands of samples of suspected water submitted for examination, I find none to contain typhoid germs; the other germs, excepting diphtheria, we know not. But why go to milk-supply or what not, when we carry them around in mouth, throat, intestines and on the skin, for months, when germs that cause the most virulent and fatal infections are constantly to be found upon our skin?

Briefly, another very important point: Say Chicago has 2,500,000 inhabitants; say the birth rate is ten per thousand=25,000 per annum. Of these children, say one in every ten gets scarlatina, which would be very hard on the Windy City, and make 200 cases of scarlatina, each month each year. There would be howling and wailing in Jerusalem at that rate. Now, Chicago has approximately 3,500 physicians, hence each doctor would see two cases of scarlatina in three years if they were equally divided. Now, suppose that ratio of infection remains the same, then there would be again but one in ten to get the disease a second time, or but 250 in all for a given year. What chance for the same physician to see the same patient in the second attack? What chance in smallpox, infinitely less frequent? What chance to control his experiment, seeing we have mildest sort of cases even in unvaccinated? This is the Law of Chance applied. Is it sufficient?

DR. C. A. HARPER (closing):—The State Board of Health has had these matters under consideration and it was difficult for us to decide just what would be the best action to pursue, especially in regard to smallpox. The question of raising quarantine on smallpox has been under discussion with us for the past three or four years. We have discussed it partially with the Minnesota State Board of Health, and with the State Boards of Health of the adjacent states. We put the proposition up to the legislature that it was necessary for us to have more laws governing the control of smallpox in this state, or we wanted that body to take away those measures which we had and therefore raise quarantine. If the children of this state were capable of being judges as to what was best for themselves then the raising of quarantine would undoubtedly be justifiable; but our decision upon this point was determined mainly upon the relation of the state to its children and the medical profession and health boards to the growing population. Is it right to remove quarantine and allow the parents of innocent children to have their way simply because they are opposed to vaccination, and therefore allow these children to have smallpox, mild or malignant, to become scarred, and under certain conditions, to die. We as a board of health believe that the state owes something to the innocent children of the state, and therefore we refuse at this time to sanction the raising of quarantine in smallpox, and putting it up, as it were, to the people. To the adult citizen the proposition is a fair one, but to the child we believed it a gross injustice, unless we could establish in the place of it some law or power on the part of the medical profession or health boards throughout the country to go into these homes where the parents are negligent and give the child that care and attention which the state owes it.

The state legislates for the protection of children in the various walks and vocations of life and exercises control superior to that of the parents. It legislates as to the age at which children may be permitted to frequent saloons and use tobacco. It makes it compulsory that the child be sent to school. It is evident, therefore, that the state has realized that parents, in all cases, are not capable of giving the child that due care and training that it deserves.

Citizenship has a basis and the state laws certainly should have a right to establish the fundamental principles underlying that basis. We believe therefore that the medical profession and the health boards owe something

to the children in this respect and would not consent to raise quarantine in cases of smallpox at the present time.

In place of this there was a bill passed by the last legislature which is now in effect. It is not compulsory vaccination but is practically so under certain conditions if vaccination is not consented to. We do not care for the adult, neither do we care for the various "sects and isms" if they get certain diseases, so long as they do not carry them about and expose other people. We have no particular sympathy for this class. They are old enough to know better, but we do feel sympathy with the child of Christian Science parents who may be walking around with a broken limb or suffering from a serious malady which could be remedied by the efforts of modern science. This law is an innocent one and fair to all concerned. As soon as the schools open in the state you will be called upon and every health board of the state will be called upon to see to the enforcement of this law. Stated shortly, it requires that no pupil or teacher shall be permitted to attend the schools of this state if there is a case of smallpox in that particular district unless he has been successfully vaccinated, or shows a certificate of recent vaccination. This extends first for a period of twenty-five days. The object is to keep the schools from being closed. We had smallpox in 206 localities in the state last year. In over a hundred localities the schools were closed from four to ten weeks simply because there was no compulsory vaccination. Smallpox was prevalent and perhaps five per cent. of the people refused to be vaccinated. This five per cent. then, demanded that the schools be closed, and therefore ninety-five per cent. of the children were robbed of a schooling to which they were justly entitled. Now then, we demand that the schools be kept open and if there are any parents of children who refuse to have the children vaccinated they can keep them from school for that period of time, but the ninety-five per cent. of children can have the advantage of school. If smallpox is prevalent the order can be renewed for another period of twenty-five days, or so many days thereof as the State Board of Health may deem advisable. By repeated renewals this law could be made practically compulsory vaccination. We therefore not only have the immunity brought about by vaccination, but the educational effect, year in and year out, is an important and a better factor than to put it up to the people at the present time.

The question of disinfection came up and I would like to say just a word on that. Fumigation is not a safe thing to rely on entirely. You want cleanliness first, last, and always from the beginning to the end of a contagious disease. Disinfection by fumigation is a means to an end, but is not in any measure the safe and reliable method that it should be and therefore it should not be relied on exclusively. Disinfection, if properly carried out, can render any place absolutely safe, but as it is carried out by the local health authorities in many places in the state it is not as successful in its results as it should be. Too many different preparations are used for disinfection. Sulphur has been used, and sulphur as it is used ordinarily, in a dry room and in small quantities, does not give satisfactory results. Certain preparations of solidified formaldehyde have flooded the market in this and other states. It is absolutely worthless. Do not accept it. Formaldehyde, of forty per cent. strength, liberated in a room with a temperature of 75° or higher, with all the cracks and crevices of the room firmly tightened, and the

room kept closed for a period of six to eight hours, using ten ounces of formaldehyde to every one thousand cubic feet of space will produce successful results. Plenty of moisture should also be liberated in these rooms.

It is important to mention the permanganate of potassium method. The health officers are making many inquiries about this method. It is an easy way to make a big fuss in a room, and if handled right it is satisfactory; but handled as it is handled, according to some of my observations, it is practically worthless. A half dozen ounces of fluid formaldehyde is used and as many ounces of permanganate of potassium is mixed with it. This is sometimes all that occurs in a room. If there is no moisture or heat and the proportions are not rightly selected it is practically worthless as a disinfectant. It makes a great big smoke and it is all over. Now if you are going to use permanganate of potassium you must nearly double the amount of formaldehyde to be used, because in the chemical reaction between fluid formaldehyde and permanganate much of the active agents is used up. To one thousand cubic feet of space, if you are going to use the permanganate method, you should take at least sixteen ounces of fluid formaldehyde and six and one-half ounces of permanganate of potassium. If you use an excess of one over the other much of the active agents will be lost in the chemical reaction. Therefore it is essential that you be specific in the quantities and have plenty of heat and moisture.

I thank you for your attention given.

DR. NOER:—I desire to ask you a question. I saw a representative of a certain solidified formaldehyde firm have a letter of yours recommending the preparation. How about it?

DR. HARPER:—I must take a few minutes to answer that question. Some two or three years ago there was a representative of the George Leninger Company, manufacturers of solidified formaldehyde, of Chicago, who came to the office of the State Board of Health and wanted the recommendation of the State Board of Health for that solidified formaldehyde. I told him that I would not recommend anything unless we made a test of the preparation. He said, "All right, we are willing to do that. Who will make the test?" I said, "You take it down to the state hygienic laboratory with Dr. Russell as director." He was the state bacteriologist and I also informed the agent that I would write a letter to Dr. Russell outlining what I wanted in the test. He said, "All right, we will be glad to do it."

I wrote the letter, gave it to the man to take to Dr. Russell, so that Dr. Russell could see what the State Board desired. He went down and talked to Dr. Russell. He took his generator and said, "Here is the formaldehyde." Dr. Russell informed him that he would use the generator but would go on the market to buy the formaldehyde. "Why, what is the need of that? Why do you want to put the company to the expense of paying for the formaldehyde when we can furnish it right from our laboratory?" he asked. Dr. Russell then said, "It all comes back into your pocket anyhow, so it is practically the same thing in the end."

This agent's name was Briggs, and he said that he would telephone the people in Chicago and would see us later. He left the laboratory and went back and perhaps did telephone the people in Chicago. Anyhow the next day when Dr. Russell was holding a recitation he went to the state hygienic

laboratory, took his formaldehyde and his formaldehyde generator and has never been seen since.

Now then, we issued immediately in the Bulletin, a statement that solidified formaldehyde prepared by the George Leninger Company of Chicago was prohibited from being used in this state. Following this there was much correspondence with the Leninger Company. Dr. Leninger offered to come and make good, if possible, but I said that we did not care to have anything to do with him, and on investigation we found, after examining the samples, that they were apparently all right. These samples were left at my office, but taking the goods that you find on the shelves you could generate and generate and stand right around in the room where it is being generated without any ill effect. When that fact was put to the company, he said that that was one of the secrets of the preparation, that it did not make any irritating gases.

LATE SYPHILIS OF BONE.

ILLUSTRATED BY A TYPICAL CASE.

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That syphilis is produced by infection with a fixed poison due to the so-called *Spirochaeta,* or more correctly, *Treponema pallidum* of Schaudinn, appears to be no longer in doubt. The results of the observations and researches of such authorities as Metchnikov make it difficult for us to escape the conclusion that this protozoon is the true organism of syphilis.

The anatomic changes resulting from syphilitic infection may be reduced to hypertrophy of the normal tissues, and a new growth of connective tissue caused by inflammatory irritation. Either of these, or both, may be the basis of any syphilitic manifestations. They assume a different aspect and importance as they affect different parts of the system.

One of the most important varieties of the first classification is the hypertrophy of the tunica intima of arteries, giving rise to arterio-sclerosis, with narrowing or occlusion of the vessels. Of the second group, the gummata are of greatest importance.

These manifestations are not characteristic of any particular stage of syphilis, although gummata and malignant symptoms of arterial sclerosis usually occur after the second year, in the so-called tertiary stage. There may be a total absence of tertiary lesions, and again, they may appear in the most perplexing forms, from mere insidious

traces, as callosities of the sole, to the most malignant types of necrosis of important organs. These lesions are positive signs of impairment or arrest of nutrition produced by arterio-sclerosis or by pressure from gummatous tumors.

The lesions and associated symptoms produced in this way are legion and may give rise, in any organ or portion of the body, to almost any pathologic condition or disease known to medical science. When the brain is involved various changes occur, such as softening, and psychic symptoms appear, as exaltation, mania, melancholia, or coma, paralysis and anesthesia. When it affects the bones, particularly at the point where they are not covered with thick musculature, it causes periostitis, ostitis, gumma, or necrosis simulating osteomyelitis or tuberculosis.

The multiplicity of lesions and symptoms is appalling, and one might well question our capability of coping with a disease which demonstrates its virility in so many different ways. There is no disease that has been longer known to mankind than syphilis, and little doubt remains that this is the disease spoken of in Holy Writ as "dying out in the second and third generation in those who love God and keep His word". In spite of this apparently hopeless view we are encouraged in no mean degree by a knowledge of the fact, that, given a detailed history of a case, our knowlege of its variable course and of certain characteristic lesions, which in turn direct our attention to the importance of other symptoms which may be present, and the brilliant results of therapy, we have at our behest a means of diagnosis and cure which is crowned with success in even the most obstinate cases.

Whenever a case appears doubtful, or irregular, or we find that we "do not understand" it, we should remember to apply the therapeutic test for syphilis. Under the diligent employment of specific remedies (iodin and mercury) almost any syphilitic lesion may be caused to disappear. If it is of recent occurrence and the morphologic elements have not yet disappeared from the result of prolonged pressure or arterio-sclerosis (parasyphilitic lesions, tabes), restitution *ad integram* may be hoped for even in desperate cases. This takes place by absorption, rarely by demarcation. Chronicity of bone lesions may continue indefinitely when sequestration fails to occur, and may be practically incurable unless augmented by surgical removal of the diseased bone. If syphilis of the bones is allowed to continue unmolested "the gumma will not remain limited to the periosteum, but will gradually spread towards the skin, and then we have a typical serpiginous ulcer of the skin, with carious bone at the bottom"

(Cheyne). If, however, a complete operation is performed, removing all diseased bone and periosteum, the lesion will heal with the aid of specific treatment, and the bone may in time regenerate almost entirely from the periosteum.

This preface on syphilis is, of course, too short and incomplete for a theme of such magnitude, but I trust that it will serve its purpose in making the report of the following case intelligible as well as interesting. Some features of this case are of such interest, to my mind, as to justify the preparation of this little monograph.

A male patient, 46 years old, who had been confined in an institution for the insane, and who was out on parole, was referred to me for amputation of the forearm at the elbow on account of an incurable disease of the lower ulnar region, with a fistula communicating with the interior of the ulna. The condition was believed to be one of malignant tuberculosis. He was brought to me by his old father who requested admittance to the hospital for the purpose of amputation of the arm, or whatever else was found expedient.

Fig. I. Before operation.

On inspection of the wound I at once suspected the true nature of the disease and immediately instigated a detailed examination into the history of the case, with the result that a local operation and general specific treatment restored the arm.

History:—Father is a vigorous old man at 92; mother died two years ago; had been a life-long hysteric and was a total wreck when the end came. Two brothers are drunkards; one brother has been confined in an insane asylum; one sister is married and childless; another is unmarried; both are hysterical, all more or less degenerates.

Negative history anent diseases of childhood. At the age of 25, anno 1886, he had what was supposed to be "a mild clap". This was treated by a reputable physician with local injections and internal medicines and "cured in a few weeks". Six weeks later he had an eruption of red spots on both thighs, which was treated with salves and disappeared:—

Eight years later, in 1894, he married and lived with his wife for the greater portion of six years; the union remained childless, but she died in 1903, in a private hospital at Chicago; cause of death —abortion, the nature of which could not be elicited. In October, 1895, he was injured by a fall from a buggy; the arm was badly bruised at the place where he later developed the present trouble. Though he bled considerably at the time, the wounds healed within a week. In April, 1897, he took the Keeley cure for four weeks, but was not benefited for any length of time, and in 1900 he was committed to a hospital for insane. Nineteen different times he succeeded in escaping from this institution, or he procured leave of absence for shorter or longer periods of time, but would invariably take to drink, and upon raising a disturbance would be re-committed.

The arm did not trouble him any until January 3, 1903, when an ulcer formed and it began to ache, the pain being worse at night. St. Jacob's Oil was applied and relieved the pain in three weeks.

Fig. II. Relaxation cut, primo intentio, by Thiersh method.

That summer his wife died. On October 6, 1905, the arm began to pain him again and a boil formed. The latter was opened, the pus allowed to escape, and the wound scraped. Since then it has never been healed entirely. On April 25, 1906, the physician in charge of the case curetted the bone and cauterized the granulation tissue. The wound seemed healed in June, but on removal of the crusts subjacent ulcers were found. In February, 1907, he was again operated on. The wound was about healed by April and broke out again in June. Healing salves were employed for seven weeks and then the wound was again operated on as before. Two ulcers remained and increased in size and it was proposed to amputate the arm. He was then referred to me for operation.

Status quo. Male, aged 46 years; medium size; strong frame, but now of spare musculature; face originally intelligent, deep-set eyes under a strong Scandinavian brow, but permaturely wrinkled, with a sallow complexion; wandering eyes; evidence of a dissolute life. His speech is loud and excited. Has a remarkably correct memory

for dates. The urine is clear, light yellow in color; no casts; no albumin or sugar; sp. gr. 1012.

Along the ulnar border of the right forearm may be seen an old cicatrix 5 inches long by one to three inches wide, glistening, atrophic and covered with epithelial scales, which appears to have healed by granulation, and is more or less firmly adherent to the ulna in its lower half. On the volar side of the upper extremity of the scar is a kidney shaped serpiginous ulcer two inches by one inch in size, situated over the belly of the musculus flexor digitorum sublimis, and is in no way connected with any bone lesion. The edges are clear-cut, covered with red granulations and crypts of pus. The wound is adherent to the deep fascia. At the lower end of the old scar, two inches above the wrist-joint, is an ulceration filled with red granulation tissue and surrounded with a skin wound of the same nature as the first mentioned. The horseshoe arrangement of the granulations is quite distinct. (Compare with white spots in Fig. 1, representing crypts of pus). The wounds are not unlike characteristic tertiary lesions. There are no gray granulations on the wounds. No pustules or edema present. Although the wounds are very tender there is no affection of the wrist-joint, which is about one and one-half inches removed, nor is there any muscle degeneration, all of which might have been expected to be present in a case of tuberculosis.

Operation:—The arm was shaved and cleansed the night before, and prepared with a 1-2000 bichloride solution. The arm was again cleansed the next day, while the patient was on the operating table, and all open wound surfaces were coated with concentrated trichloracetic acid, thereby building a solid adherent cover of acid albumin over the infectious surfaces, so as to prevent infection of the operative wounds. The fistula was now explored and found to open into a large cavity in the ulna. This was curetted and swabbed with carbolic acid followed by iodin tincture. An elliptic incision was made through sound skin just outside the ulcer surrounding the fistula, down to the fascia, and the skin, fascia, and a very small portion of the muscle tissue removed. The muscles were then retracted and an incision made into the sound periosteum, about one-eighth of an inch from the margin of the bone-cavity. The periosteum was then loosened and reflected; the subjacent bone was found possessed of a rough surface and contained several collections of light yellow, gelatinlike (gummatous) masses, but no gray granulations were encountered. With cutting forceps and chisels the bone was then trimmed and beveled down in such a manner as to obliterate any cavity or reservoir which otherwise might permit the formation of a blood-clot or any other filling, as this would have proven unsafe. This did not leave much bone at the lower fourth of the ulna, but the portion which was allowed to remain was quite likely healthy and sound bone tissue. (If necessary all solid bone could have been removed.) The joint did not appear to be affected in any way and was not opened. The soft tissues, the periosteum, muscles and tendons, were then pulled well over the naked bone and united layer by layer with iodized catgut. The skin was sutured with silkworm gut, and the wound closed without drainage. In order to approximate the skin two relaxation

skin incisions were necessary, a volar and a dorsal, each about three and one-half inches long. Both incisions gaped for about an inch and a half after the wound had been sutured. On the fourth day Thiersch's skin grafts were transplanted to these areas from the thigh. The upper lesion was treated in a similar manner, a thorough removal of unsound tissue being effected, by clean dissection in sound tissues.

After-treatment:—He was placed on forced mixed anti-syphilitic treatment. The wound and the transplanted flaps healed nicely. The bandages were changed every four days, and in two weeks he was ready to go home. During this time his body weight had increased 12 pounds. His mental condition had also cleared up considerably, and his manner and speech were more natural and pleasant. This was no doubt the result of the mixed treatment. The transplanted skin did not show much contraction as yet; it had become raised to a level with the surrounding skin. (See Fig. 2).

The removed tissues were sent to the Columbus Laboratories at Chicago for examination. Their report is as follows:

"Referring to your specimen of tissue submitted to us on Oct. 28th we wish to report as follows: There is no histology which is characteristic in this specimen. The arrangement is that of granulation tissue. There is much obliteration of blood vessels. There is nothing that looks at all tubercular. The degeneration or obliteration of the vessels might be a feature of any chronic inflammatory process or it might accompany syphilis."

Besides the specific treatment, I attribute the perfect healing of the wounds to the removal of all unsound tissues and to the special precautions taken to prevent dissemination of pus and infection during the work, which at times results in cases in which the surgeon is content to curette these low granulating forms of tissue instead of excising them or biting them away with bone forceps until sound tissue is reached.

The accompanying Fig. 1 shows the horseshoe-shaped arrangement, the white spots therein being areas of pus in the more profound parts of the ulcers. The other figure shows one of the large relaxation skin incisions at the end of the second week.

Although we have no absolute proof of infection it is generally known that chancre of the urethra is frequently mistaken for a "mild gonorrhea" (Hare) and heals quickly under local injections and internal medication. Whether or not the eruption was specific, we don't know. The marked improvement which followed specific treatment is attested by all those who have known him. The presence of gummatous material beneath the periosteum, the characteristic horseshoe-shaped nature of the wounds, as well as the histologic report from the Columbus Laboratories—all considered—lead us to conclude that this was a manifestation of late syphilis of the bone and syphilitic degeneration of cicatricial tissue.

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EDITORIAL COMMENT.

ANATOMIC AND PATHOLOGIC EXHIBIT.

A preliminary notice from the Committee in charge of this feature of the June meeting appears elsewhere in this issue. Under more favorable conditions the labor connected with this exhibition is certain to be not only considerable but of a particularly exacting nature. Since the Committee is anxious to do its utmost to make the display instructive it should have the support it requests, and the active co-operation of every member of the society. None having suitable specimens should fail to respond to the call for material, and should, as requested, give early notification of the nature of the same. This extremely important department of our annual meeting has been too insufficiently developed and steps should be taken to establish more permanent and productive system than is possible under present conditions.

A FIELD FOR REFORM.

Catastrophies are essential to progress. The grist of evil happenings continues, and though in their wake are left suffering and destitution, the silver lining of these calamitous clouds becomes apparent, and the onward march has simply claimed its price in victims.

The Iroquois fire caused a wave of reform in theatre building; the Slocum disaster was followed by more rigid inspection of passenger steamers; recent mine disasters will doubtless bear fruit in better safety devices. Before the moans of the children who lost their lives in the Ohio holocaust were hushed, the country was roused to a realization of the dangers everywhere existing in our schools, and from all this there will evolve lasting benefit.

The school question and the responsibility of the state to the child, have brought forth numerous opinions from varying sources, all of which were cast in the same mold: everyone seems now to have the conviction that children may and must not be forced to attend schools unless every possible and known means for their safety be provided. This is a sound and just principle, and is so particularly in Wisconsin where all children under 14 are by law compelled to attend school.

When the smoke of the present reform guns has subsided, will the field be cleared for a sane view of a foe other than fire that threatens school children? How about disease? If children are forced to attend school, have the parents of these little ones not the same right to demand that these schools safeguard the children against disease as well as against accident? Let city authorities cogitate a bit upon this.

THE GERM HAS TURNED.

The enthusiasm of the senders of the Tuberculosis Bulletins, which are being gratuitously distributed by the Wisconsin Committee to about sixty newspapers, has received the severest kind of a jolt. The seditious publication has fallen into the hands of the enemy, and it is predicted that—boomerang like—the internationally exhibited bacilli will turn upon their tormentors and make them grovel in the dust.

Read here what the proprietor of one up-state paper writes to the senders of this infectious literature:

"Gentlemen:—Kindly cut me off your mailing list and save postage. I have no use for your bulletins and do not use them. They all go into the waste basket.

In a recent bulletin you admitted the change of climate advised

a few years ago was a mistake. It will be only a few years before you will have to admit that the advice now being given in "fighting the white plague", was a mistake. Heredity is also now denied. You are all wrong, and your germ theories will in due time be proven so, as conclusively as your mountain climate theory and heredity of a few years ago. The more you stir up the public mind about any disease the more the public will have that disease. There was no grip till 1889. Since then the good old fashioned cold has disappeared and all is grip. Why? Because you keep it in the public mind. No good can come from revolting tuberculosis exhibits and mark my words, your international congress will be followed by an increase rather than a decrease of the disease.

Kindly cut me off. I would not print the unfounded mistaken, but well meant information sent out in your bulletins even for pay.

Yours, in the most kindly, but confident spirit,

* * * * * * * "

STATE VS. F. A. H. REINHARDT.

The case against the above named defendant, together with his two twin brothers Willis F. and Wallace A., and one A. J. Wilson, on charge of a criminal conspiracy to defraud, was tried in the Municipal Court of Milwaukee County, on an appeal from a conviction in the District Court, from February 24 to March 7, on which latter date the defendant was found guilty by a jury.

The Reinhardts have figured so long as the arch fakes of this state, that it may be interesting to give a brief outline of their career as elicited in this trial.

In 1902-4-6 three different corporations were organized by the Reinhardts and their relatives and three of their employees. The so-called medical institute was conducted in the Alhambra Building of Milwaukee. One of their former doctors, employed in 1902-3, testified that every ailment of which an alleged patient might complain was referred to secret causes. All the money that could be extracted was taken, and as large amounts as the victim could be induced to sign for were then secured on judgment notes. Ninety per cent. of all persons calling were "turned" and treated for ailments they did not have. Mail order business was also conducted and the same series of medicines were sent in response to the various complaints and symptom blanks that were received.

Inspector Bird of the Postoffice Department testified that he sent them a decoy letter in response to some advertisement in the newspapers

in 1905. Immediately letters began pouring in upon him although he had made inquiry about their treatment only. This was in the fall of 1905. He finally filled out a symptom blank with the assistance of a physician, indicating a perfectly healthy man and specifically denying any secret or private ailment. Immediately he received a long letter telling him that he was suffering from the most vile diseases and in danger of immediate dissolution unless he took their treatment. Bird paid no attention to these letters, but continued to receive letters almost weekly. In the spring of 1906 he called at the office of the institute and there saw Willis F. He told him about the symptom blank and that it indicated him to be a perfectly healthy man, and asked him why they had sought to have him take their treatment. R's reply was that others here were doing the same thing and they thought they had a right to do so also. Bird told him also that the free electric treatment advertisement was merely a ruse to have persons write for such treatment. Upon doing so the so-called electric belt was sent them and a supply of medicine, C. O. D. Reinhardt replied that others had done the same thing and that they thought they could do it too.

A witness from the state testified that he was suffering from partial paralysis and called at their office. He was taken to a room and thoroughly examined as to his financial condition, his income and what he could probably be induced to pay. He was told his paralysis was due to varicocele, and although the patient emphatically denied having such disease he was made to believe that he did have it, and induced to sign a note for one hundred and fifty dollars. He began taking treatment—no good resulting. After he had paid the money he was again induced to call and told that his paralysis was due to the piles, and another fifty dollars was taken from him. Of course no good resulted.

Another witness from the state testified that he was suffering from heart disease. He went to those people, was told that his ailment was due to sexual weakness, and was induced to pay two hundred and fifty dollars. No help resulted. He was again called in and told his ailment was due to organic stricture, and two hundred and sixty-five dollars more secured. Later he was again called to the office and told his disease was due to a weak spine, and was induced to pay eighty dollars for treatment and thirty-five dollars for a brace. Thus they secured six hundred and forty dollars, and absolutely no relief was obtained.

Another witness testified that he was suffering from rheumatism and called at the institute. He was told that his rheumatism was

due to hydrocele and induced to pay three hundred and ten dollars for treatment, which of course accomplished nothing. Later he received relief by purchasing some ointment for $1.50 at a drug store.

A number of witnesses were called who had similar experiences, the methods being the same though the details were a little different.

A witness was called to testify that one of the employees had shown him their offices and had explained to him that certain charts in the examination room were used for the purpose of scaring persons who called, and to show the awful results if they did not immediately begin their treatment. He was also shown an electric chair and told that persons were placed in this and a mild current turned on, not enough to hurt, nor enough to do any good. He was also taken to the medicine room and shown the various prepared nostrums and the order in which they were sent to persons writing for treatment, no matter what the ailment was.

It was also proven that obscene medical books were distributed by express wagon-loads to men, women and children.

A number of prominent and experienced physicians were called to testify that the various causes given by these people for the alleged ailments were fraudulent, and no contradiction of this testimony was attempted.

It was shown that this particular defendant was connected with this institute because the lease of the premises was in his name, the deposits were made in his name, the checks were signed in his name; and a letter written by him to the brothers showed that he was practicing medicine because he reported a remedy to them and described the methods of applying it.

The defendant himself took the stand and testified that he had been in the medical business for fifteen years and that he had started at least seven medical institutes for his brothers, by furnishing them the money. He admitted that his brother Wallace A. had lost his license in Minneapolis, because of fraudulent practices. He admitted that he was the manager of the Heidelberg Institute at St. Paul in which his brothers were interested. He denied that he had any connection with the local institute, but later a bill of sale was introduced under the terms of which he sold the whole outfit in 1904 to L. J. Reinhardt, who was the wife of Wallace A.

The testimony of his two twin brothers was also introduced given in a burglary case in 1906 in which they swore that this defendant owned a facial institute and that Wallace A. was the managing physician for him. Of course he denied this.

Other documentary evidence was introduced including sixty-nine judgment notes signed by victims, all of these notes running to F. A. H.

A hand-writing expert was called to identify the hand-writing of said documents as that of these three brothers.

The two so-called physicians in this connection with the institute were called; one, Dr. Bailey, who declined to testify on the ground that if he did he would incriminate himself; the other, the so-called Master Specialist, boldly denied everything and his demeanor certainly showed that he was a fit tool for these fakes.

A motion for a new trial is now pending, and it will be heard on March 21st. If this motion is overruled sentence will be imposed.

Mr. A. C. Umbreit, the able attorney of the Board, is again to be congratulated upon the masterly manner in which he arrayed the evidence and carried the case to a successful issue. Whether the case be taken to a higher court or not, and even though it drag in the courts for a time, we believe this conviction sounds the death knell of these fakirs, and will intimidate others of similar intent sufficiently to induce them to give our state a wide berth.

The successful outcome of this trial is largely the result of the efforts of the Committee on Public Policy and Legislation of the State Medical Society, which merits the hearty financial support of the members of the profession throughout the state.

FILTHY LUCRE

Ours is an age of introspection. Though foreign affairs are demanding their share of attention and regard, domestic affairs have engrossed the attention of our men of state to an intense degree: they have shown us the motes in our own eyes, and are so constantly keeping before us our own shortcomings, so persistently finding new things worth investigating and correcting when we would fain have thought ourselves and our institutions already thoroughly overhauled, renovated and well nigh perfect, that verily we are prone to believe "all the world is queer but me and thee, and sometimes I think thee is a little queer too." However, it is well that 'tis so, for such analysis will lead to greater stability. Introspection is a good thing.

The object of our present solicitude is stated in the title of this editorial. Shakespeare probably never gave thought to the aptness of his expression nor to its eventual literal adaptation. Anyone who has had thrust upon him a money roll which had to be counted or handled—unless he was fortunate enough to have lost all sense of

smell—has scented the nauseatingly musty odor arising from the old, soft, dirty, tattered and torn bills, and, while unwilling to refuse the cash, has doubtless wished the coin of the realm to be a somewhat cleaner article of barter and exchange.

It has been estimated that the life of a one or two dollar bill is about one year and 8 months. Five dollar bills last three years and a half. Think of a bill in circulation from one and one-half to three and one-half years, and it is easy to contemplate how even the most noble Roman of them all—whose countenance is engraved thereon—will become besmirched to such a degree as to deny him admission to the hall of fame. It is a frequent habit—especially among women, and particularly those of the lower classes—to put their money in their stockings next to the skin, or secrete it elsewhere about the person. After the skin has added its dirt and moisture, the butcher makes a few fat contributions, and the bill is passed on, and on. Do you wonder it smells?

To what extent dirty bills are disease bearers, it is hard to state. Individual cases of infectious disease are often attributed directly to the handling of bills. Actual proof may be difficult. The possibility and probability of it, however, is given in the results of New York laboratory research: it is reported that "dirty bills contain 73,000 living bacteria each, dirty pennies 26, dirty dimes 40, and moderately clean bills 2,250." (We surmise that these quoted figures refer to the number of colonies found, not of bacteria.)

Coins, too, come in for their share of abuse. Filthy habits, especially among foreigners, allow a generous accumulation of pollution upon them. (In Honolulu all coins received by the police department are washed in a solution of camphoral soap. It is stated that Chinese gamblers put coins in their ears, mouths and shoes, thus giving the authorities good reason for adopting a cleansing process.)

There is but one remedy: that the government provide for the early redemption of all bills used, and defray the expense of the shipment. Banks are the natural agency through which this should be done, and if people refuse to accept worn out and dirty bills, the pressure would soon be so great that banks would find themselves compelled to assist in the enactment of laws providing for the exchange of bills before they have reached the degree of filth now taken as standard for redemption.

Excessive express rates have hitherto been the cause of the government's disinclination to redeem bills when but little damaged or soiled, but a measure recently introduced in Congress advocating "Clean

Money" seems to provide adequate ways and means of accomplishing the exchange of old bills for new and at no increased cost. Any such measure deserves hearty support.

"SCIENCE CURED HIM OF LEPROSY."

The title given this editorial challenges us to make good. We will do so in the words of the subject himself who is still alive to tell the tale. Dr. G. W. Barrett, of St. Louis, first published the story of his conversion in a Science paper of 1900, and this article has recently been reprinted and given much prominence. Truly the story of such a cure is worth repeating, and is a wonderful achievement of science, that is, it would be—if true. It is not our endeavor to bias our readers; let the converted doctor medicinae speak for himself:

"I was a practicing physician for about 30 years. During all this time, however, I was never free from some ailment and continually taking medicine, I thought I could not live without it. It seemed impossible to get rid of biliousness, which, from a mortal standpoint I have inherited.

I struggled along from year to year, trying every new remedy that promised any relief; growing worse all the time, till finally I was compelled to give up my practice entirely and went to the mountains for a short time, thinking that a change of climate might possibly help me. But all was in vain.

I returned to my former home in Kansas City, Mo., worse than when I went away—a physical wreck, suffering from enlargement and softening of the liver, indigestion, ulceration of the bowels in the most aggravated form, heart trouble, and that most dreaded of all diseases, called leprosy, which had been contracted when called to see a patient who was afflicted with it. I felt a sense of fear come over me while in the room, but never dreamed of its being leprosy, as I had never seen a case of that kind. I told the patient that I could do nothing and left.

Some time afterward, during my stay in the mountains, I noticed some peculiar looking spots on my body, so I consulted a specialist on skin diseases and he pronounced it leprosy in its incipient stage."

The doctor then tells of the visit of a healer who promised him relief, though he was an out and out sceptic. He had one treatment, and was told to eat anything he pleased. He did so, his bill of fare for that memorable dinner being: "boiled beef, cabbage, turnips, potatoes, pickles, onions, bread and butter, pie and coffee." He continued happy as a lark, and hungry. On the following day he noticed—

mirabile dictu!—that the thirty years' curse had left him: he had a normal defecation! And "the signs of leprosy had nearly vanished."

The curtain rising upon the last act of this serio comic tale discloses our hero—the erstwhile sample swallower—unlocking truths by means of the newly found key. Knowing nothing to the contrary, we presume Dr. Barrett, cured of such mortal errors as "enlargement and softening of the liver, indigestion, ulceration of the bowels in the most aggravated form, heart trouble, and that most dreaded of all diseases, called leprosy" is now doing unto others as he was done by, and reaping a rich harvest therefrom.

In expiation of his sinful conduct toward those who consulted him for relief from mortal errors during his own storm and stress period of thirty years, and as a show of gratitude for final delivery from this enslavement, we would suggest—as a test of true greatness—that the doctor make a pilgrimage to the Molokai Colony. He would there be received with open arms, could give the poor lepers the glad hand, promise further healing instalments of the absent variety, take out clearance papers, and depart thence—conscious of having done ample reparation.

THE FEE FOR POST-MORTEM EXAMINATIONS.

The case of Quigg vs. Monroe County reported in Volume 113 Northwestern, page 723, will be of considerable interest to physicians throughout Wisconsin and sister states having similar statutes in regard to the fees of physicians performing post mortem examinations.

Dr. Quigg of Tomah, Monroe County, Wisconsin, performed a post mortem examination by order of the coroner and district attorney and filed his bill for fifty dollars with the County Board for such services. The County Board cut the bill down to ten dollars claiming that it was within their discretion to allow any amount they might see fit, from five dollars up, under the statute. Quigg appealed the case to the Circuit Court where the Circuit Judge allowed him the full amount of the bill. The County then appealed the case to the Supreme Court which is the court of last resort in Wisconsin, where it was decided that the County Board must allow a reasonable compensation for the work of a physician performing a post mortem examination, and that, if they fail to allow a reasonable compensation, the whole matter would be reviewed in the Circuit Court on appeal.

This question, prior to the decision of the Supreme Court, has often been litigated in Wisconsin, and a number of the Circuit Courts have held that the County Board had the sole discretion as to the

amount they should allow a physician. This decision puts the matter into the hands of the Circuit Court, and there is a greater likelihood that physicians in the future will be more adequately paid for such services.

CHINESE COLLEGE OF MEDICINE.

What are reported as preliminary plans for the establishment of a medical college in China, contains the startling announcement that a 12 year course is contemplated.

The report states that "In accordance with Chinese ideas the course is to be divided into three years of old Chinese medical practice and six years of modern western training. At the end of these nine years there is to be a thorough examination and then three more years of study and trial practice shall be demanded before the students shall be qualified doctors. This examination must also be passed by people who are now practicing on certificates from existing medical schools. No one who does not hold a literary rank of a fixed grade shall be allowed to take these examinations, regardless of where he studied. Compensation to be paid by the students who will study at this new school is to be fixed at a future meeting of men appointed to have charge of the institute."

Were we to be given our choice between the abbreviated courses of some of the late departed (but not lamented) "diploma mills" in our country, and a 12 year period of study before independent medical work were our privilege, we would undoubtedly prefer the latter—other things being equal. But this last condition means many things, not the least important of which is the individual's ability to devote 12 potential years to non-income bearing work. This alone would prove a tremendous barrier to the practicability of such a scheme—not that splendidly equipped practitioners would not be the product of such an institution.

However, any consideration given the matter is as yet mere talk at random, because thus far the above communication is the only information at our command.

NEWS ITEMS AND PERSONALS.

Dr. Robert W. Blumenthal, of Milwaukee, was married on March 18th, to Miss Whitney of Columbus, Wis.

Dr. Charles W. Schoen, of the bacteriological department of the Milwaukee Health Department, has returned from a one month's vacation spent in Mexico.

Dr. Eugene Cheney, who for the past ten years has been connected with the State Hospital for the Insane at Mendota, resigned on March 6th, and will go to Wauwatosa to become the first assistant to Dr. Dewey at the Milwaukee Sanitarium.

Reinhardt Fined $500. F. A. H. Reinhardt of the Wisconsin Medical Institute and Master Specialist of Milwaukee, was fined $500 and costs by Judge Brazee on March 21st, on a charge of conspiracy with intent to defraud. The costs in the case will exceed $1,500. Reinhardt is charged with having secured money from patients by fraud, informing them that they had diseases which they were not afflicted with, and collecting large sums of money on the strength of treatment for such supposed diseases. The case will be appealed to the supreme court.

"Mal de Mere." The worthy editor of our contemporary, the *Milwaukee Medical Journal*, who is now enjoying a European voyage, writes interestingly and entertainingly of his trip. His description of the sea voyage includes mention of suffering of the usual kind, though contrary to time honored custom he suggests no remedy. The printer, or his devil, has evidently found it rather difficult to juggle with foreign words, and his failure to properly estimate the value of the silent letter and accent mark in the French, makes the writer's meaning doubtful of interpretation. We are at a loss to understand from the above, quoted from Dr. Nielson's latest Reisebrief, whether the doctor is suffering from sea sickness or vomiting of pregnancy. Fiat lux!

ANNOUNCEMENTS.

THE PROFESSION AND THE PHARMACOPOEIA.

Philadelphia, February 3, 1908.

To the Editor of the WISCONSIN MEDICAL JOURNAL.

Dear Sir:—As you know, the United States Pharmacopoeia (8th Rev.) was made the standard for drugs and medicines by the passage of the National Food and Drugs Act, June 30, 1906. Since then the manufacturing chemists, pharmacists and wholesale and retail druggists have been endeavoring to comply with the law. The fact remains, however, that many members of the medical profession are not actively supporting the movement through-

out the country for the more extended use of the United States Pharmacopoeia and National Formulary preparations. It was believed that the professors and instructors, in the medical schools throughout the country, could very materially aid in the movement, by giving to their students *special lectures* on Pharmacopoeial and National Formulary preparations, illustrating them by showing actual specimens and requiring them to study their physical and medical properties.

Will you kindly find space in your valuable journal for the following resolution, which will, undoubtedly, meet with approbation from the professors and instructors in most of the Medical Schools throughout the United States.

Very truly yours,

JOSEPH P. REMINGTON.

At an informal conference, called by Prof. Joseph P. Remington, of the teachers named below in the medical schools of Philadelphia, the following resolution was passed:

"Resolved, that it is of the utmost importance for accuracy in prescribing, and in the treatment of disease, that students of Medicine be instructed fully as to those portions of the United States Pharmacopoeia which are of value to the practitioner, and that members of the Medical profession be urged to prescribe the preparations of that publication, and further, that this resolution be forwarded to the Medical and Pharmaceutical journals, and to the teachers of Medicine and Therapeutics in the United States.

James Tyson, M. D.	Seneca Egbert, M. D.
John H. Musser, M. D.	M. C. Thrush, M. D.
John Marshall, M. D.	James Wilson, M. D.
Horatio C. Wood, Jr., M. D.	E. Q. Thornton, M. D.
H. A. Hare, M. D.	John V. Shoemaker, M. D.
J. W. Holland, M. D.	I. Newton Snively, M. D.
Alfred Stengel, M. D.	J. M. Anders, M. D.
David L. Edsall, M. D.	S. Solis Cohen, M. D.

TO AMERICAN PHYSICIANS INTERESTED IN THE ALCOHOLIC PROBLEM.

To the Editor:—During 1907 over 200 papers, lectures and pamphlets, were published in Europe and America concerning alcoholism and inebriety from a purely scientific point of view. Many of the authors complained that these papers were practically lost because they did not reach medical men interested in the subject. The Scientific Federation Bureau organized in Boston two years ago, for the purpose of collecting and disseminating the facts concerning the alcoholic problem in connection with the International Bureau of Europe, formed for the same purpose, proposes to secure a list of medical men who are interested in the scientific study of the alcoholic problem. This list will be valuable for authors and students who write on this subject and wish to address a special audience of physicians, not only to increase their interests, but to stimulate more exact studies of the subject. Such a list will enable the Bureau to extend its work of accumulating papers and reprints of all that is written, and keep authors and readers familiar with what is being done. All physicians who are interested in the scientific study of the

alcoholic problem and the research work and studies of medical men at home and abroad on this subject, are urged to send their names and addresses so as to be registered and receive copies and abstracts from authors and others who may wish to have their work read by interested persons. As chairman of the board of directors of the Scientific Federation Bureau, I urgently request all physicians interested in this study to send me not only their own names, but lists of medical men who would care to keep in touch with the most important literature coming from the press, and to know the latest conclusions in the scientific world concerning this problem.*

Address, T. D. CROTHERS, M. D., Chairman,
Hartford, Conn.

*The above was sent the JOURNAL with the request that it be published.

IN MEMORIAM.

NEHEMIAH DODGE, M. D.

Doctor Nehemiah Dodge, for many years a practitioner of Milwaukee, died on Sunday, March 15, 1908, from cerebral embolism. He had been suffering for several years from hemiplegia, a result of a previous attack, and had by reason of this not been in active practice for that time. He was buried in the village cemetery in Wauwatosa.

Dr. Dodge was born in Mount Joy, Pa., the son of a Presbyterian clergyman then conducting a seminary in that place. On his being graduated from the Jefferson Medical college at Philadelphia, he served as an interne in Blockley hospital and for a time in the insane department. He came west in 1880, taking a position as an assistant physician in the then newly opened hospital for the insane of Milwaukee county. Here he did valuable pioneer work in the care of the insane, applying his experience of the east to the then primitive condition—for the institution at that time might well be described as being little more than a building in a claybank containing chronic insane and a bottle of laudanum.

After several years of service there he entered the practice of medicine in Milwaukee, working in general practice though with particular attention to nervous and mental diseases, often retained as an expert in insanity cases.

In practice he was able and conscientious, never lured by commercial gain. He was persistently uncompromising in placing principle above profit. Generous to a fault, giving his time and strength gratuitously to the poor and often to the rich, he exemplified the old fashioned ministerial side of the medical profession.

By reason of his modesty and sensitiveness his friendships were more characterized by staunchness than number. Those who knew him, knew him well and prized in him his naive and high sense of social service; for his life, indeed, was one of unostentatious and unremunerated service. He was willing to be a tool, an instrument working out his self-expression away from the limelight and without the plaudits of men—like the violets that bloom in the shade and like them too in leaving a singular impress of fragrance on his contemporaries.

WM. F. BECKER.

Chairman, PROF. MAZYCK P. RAVENEL.
Vice-Chairman and Secretary Dr. HOYT E. DEARHOLT.
Assistant Secretary, PROF. W. H. FROST.
Treasurer MR. JOHN H. KOPMEIER.

EXECUTIVE COMMITTEE
Dr. J. M. BEFFEL
3200 Clybourn St. Milwaukee
Dr. C. H. STODDARD
Goldsmith Bldg. Milwaukee
Dr. O. E. SEAMAN
Goldsmith Bldg. Milwaukee
HOYT E. DEARHOLT
Goldsmith Bldg. Milwaukee
Mrs. H. M. TOURTELLOTTE
Waukesha, Wisconsin.

Wisconsin Committee of the International Congress on Tuberculosis.

WASHINGTON, SEPT. 21-OCT. 12, 1908

EXECUTIVE COMMITTEE
Prof. MAZYCK P. RAVENEL
University of Wisconsin
Madison, Wis.
Prof. W. H. FROST
University of Wisconsin
Madison, Wis.
Mr. JOHN H. KOPMEIER
Wells Bldg. Milwaukee
Mr. M. J. TAPPINS, Capitol Bldg.
Madison, Wis.

HELP! HELP! HELP!

Every physician in Wisconsin has an opportunity to engage in the anti-tuberculosis crusade, and is most eagerly urged to do so. The men who have done and are doing the bulk of the work are volunteers of some years' service and shouldn't be expected to shoulder the whole responsibility of this state's participation in the International Congress.

The Committee has been exceedingly reluctant about directly calling upon individual physicians to assume leadership in the campaign, because of the likelihood of selecting the wrong men and thereby excluding the right ones. We don't want to believe that the apparent indifference represents the true sentiment of the individual members. The truth is likely that there are many interested, and that many, if called upon, would gladly engage in most effective campaigns either locally or upon the state committee. If this view is correct, and if modesty has been making you reluctant about coming forward, please hold up your hand.

No greater opportunity has been offered us, either personally or as an organized profession, to take a big patriotic part in fighting for the survival of the state and the people. Perhaps the late war was more dramatic, but the need for intelligent fighting men and women was no greater.

The masses hysterically respond to a call for troops in war time, but this campaign calls for calm dispassionate fighters who are willing to keep on without the blare of trumpets or the spectacular aid of gold braid and side arms.

Join the movement—write in anyway. The man who doesn't like fighting personally, ought to be willing to join the band.

From the list of prizes offered by the Central Congress on Tuberculosis, the following are selected as affording the greatest opportunities to the Wisconsin physicians.

Prizes for Educational Leaflets:

A prize of $100 is offered for the best educational leaflet submitted in each of the seven classes defined below. In addition to the prize of $100, a gold medal and two silver medals will be awarded in each class. Each prize and medal will be accompanied by a diploma or certificate of award.

Competitors must be entered under assumed names.

A. For adults generally (not to exceed 1,000 words).

B. For teachers (not to exceed 2,000 words).

C. For mothers (not to exceed 1,000 words).

D. For in-door workers (not to exceed 1,000 words).

E. For dairy farmers (not to exceed 1,000 words).

F. For children in grammer school grades (not to exceed 500 words).

In classes A, B, C, D, E, and F, brevity of statement without sacrifice of clearness will be of weight in awarding. All leaflets entered must be printed in the form they are designed to take.

G. Pictorial booklet for school children in primary grades and for the nursery.

Class G. is designed to produce an artistic picture-book for children, extolling the value of fresh air, sun-light, cleanliness, etc., and showing contrasting conditions. "Slovenly Peter" has been suggested as a possible type. Entry may be made in the form of original designs without printing.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President

Herman Gasser, Plattville 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

TERM EXPIRES 1911.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

TERM EXPIRES 1912.

3rd Dist., F. T. Nye, - - - - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1913.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., C. J. Combs, - - Oshkosh

TERM EXPIRES 1908.

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - - Marinette

TERM EXPIRES 1909.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

TERM EXPIRES 1910.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

62ND ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN.

ANATOMIC AND PATHOLOGIC EXHIBIT.

PRELIMINARY NOTICE.

CHARACTER OF EXHIBIT. The Program Committee of the State Society is extremely anxious to have this feature of the June meeting be on par with all the others, i. e., to be the best possible. The accomplishment of this enterprise demands the active co-operation of every member of the society in order that all valuable material may be so preserved as to be useful and available for exhibit purposes.

NATURE OF SPECIMENS. The following material is especially desired: *Anatomic*: (a) charts and models, (b) dissections, (c) gross sections (d) embryos (normal), (e) anomalies and malformations. *Pathologic and Bacteriologic*: specimens obtained (a) at necropsy, (b) operation, or (c) experimentally which show *early* or *rare* lesions or organisms together with appropriate microscopic preparations.

Advanced lesions, unless resultant of rare processes, are only too well known pathologically and are usually representative of so hopeless a stage therapeutically that they are of little significance from

the etiologic and therefore the curative view points which must interest every member of the Society. Moreover, the expense of shipping and insuring the material must be borne by the Society, but must be reduced to a minimum by thus excluding specimens of relatively little instructive importance.

PREPARATION OF MATERIAL. This must depend upon individual circumstances. Kaiserling specimens are most desirable but this process is too expensive and troublesome for general use. The cheapest and simplest method is to harden the tissues in an excess of 10 per cent. formalin which should be changed just before shipment either to a fresh similar solution or to 80 per cent. alcohol.

HISTORY AND LEGEND. The briefest comprehensive history of the specimen should be attached to each jar. This will permit of a suitable legend being devised for the label which for the sake of uniformity will be made for all specimens. Those sent by individuals will be exhibited solely by number, those sent by Colleges or *public* hospitals will bear the name of the institution. The name and address of the sender should be distinctly marked on the outside of the package as well as upon the history of each specimen. It should also be marked "Return" if so desired.

MICROSCOPIC PREPARATIONS. These are requested with each specimen. It is aimed to have microscopes in sufficient number and so arranged beside the specimens that the gross and minute appearances may be studied together.

To insure uniformity it is requested that when possible Haematoxylin and Eosin staining be employed.

ARRANGEMENT OF EXHIBITION. Specimens will be grouped according to lesions, organs, etc. During the meeting, in the hours just preceding the regular sessions, there will be demonstrations of individual and group specimens so scheduled as to cover the entire exhibit during the meeting. Out of courtesy to those presenting papers the exhibit will be closed during the literary portion of the program.

ADDITIONAL INFORMATION. The exact date and address for the sending of specimens will subsequently be published in the WISCONSIN MEDICAL JOURNAL. Everyone willing to contribute to this exhibition is requested to notify the chairman as soon as possible regarding the nature, numbers and size of the specimens offered. Meanwhile anyone desiring any information should address any of the Committee.

V. H. BASSETT,
Milwaukee County Hospital,
Wauwatosa.
F. GREGORY CONNELL,
Oshkosh, Wis.
J. L. YATES,
141 Wisconsin St.
Milwaukee.

Committee on Anatomic and Pathologic Exhibit.

DODGE COUNTY MEDICAL SOCIETY.

The annual meeting of the Dodge County Medical Society was held at Beaver Dam, February 3, 1908. Ten members were present and one visitor, Dr. Marsden of Rio, Wis.

As the treasurer reported $46.65 cash on hand it was moved and carried that the Society levy no dues for the County for the year 1908.

Charges of unethical conduct were preferred against one member and referred to the Board of Censors.

The following officers were elected for 1908: President, Dr. W. E. Hallock of Juneau; Vice-President, Dr. H. M. Holtz of Beaver Dam; Secretary-Treasurer, Dr. G. W. Dewey of Burnett; Censor for three years, Dr. W. H. Watterson of Fox Lake; Delegate Dr. G. W. Dewey of Burnett; Alternate delegate, Dr. H. B. Sears of Beaver Dam.

The following papers with interesting discussions were presented: *Acute Dilatation of the Stomach*, by Dr. H. M. Holtz, and *Lobar Pneumonia*, by Dr. E. P. Webb.

The next meeting will be held at Beaver Dam the first Monday in June.

GEO. W. DEWEY, M. D., *Secretary.*

KENOSHA COUNTY MEDICAL SOCIETY.

The regular meeting of the Kenosha County Medical Society was called to order by Dr. Stalker at his home, 463 Exchange Street. Fifteen members were present.

A paper entitled *The Mastoid Operation* was presented by Dr. R. F. Bacon and discussed by the Society.

After the meeting had adjourned, a delightful social time was furnished the Society. Dr. and Mrs. Stalker, assisted by their son-in-law and daughter, Mr. and Mrs. Buckmaster, served luncheon and between very animated conservation and listening to music the evening passed all too rapidly.

P. P. M. JORGENSEN, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The third regular monthly meeting of the La Crosse County Medical Society was held at The New La Crosse Club on Thursday, March 5, with the President, Dr. T. A. Miller, in the chair, and thirteen members present.

Dr. E. M. Turner read an unusually interesting paper on *The Effects of Upper Respiratory Obstruction*, demonstrating his points on a prepared skull and with blackboard drawings.

Dr. B. C. Dorset followed with a paper on *The Tonsil as an Atrium of Infection.* Dr. Dorset described much experimental work which has recently been done along this line.

The third paper was by Dr. J. A. L. Bradfield, and discussed the *Treatment of Upper Respiratory Obstructions*, particularly of the septum and turbinates and of tonsils and adenoids. Dr. Bradford demonstrated the instruments which he uses, and described fully the techinque of the operative procedures.

The discussion was ably led by Dr. E. R. Mulford, and then became general.

The next meeting will be held April 2nd: Subject. *Gastric Ulcer.*

EDWARD N. REED, M. D., *Secretary.*

MANITOWOC COUNTY MEDICAL SOCIETY.

At the annual meeting of the Manitowoc Couny Medical Society, held at Manitowoc Jan. 14, 1908, the following officers were elected: president, Dr. W. G. Kemper, Manitowoc; vice-president, Dr. A. M. Farrell, Two Rivers; secretary and treasurer, Dr. J. E. Meany, Manitowoc; censors, for 3 years, Dr. F. P. Lohman, for 1 year, Dr. J. F. Mulholland; delegate, Dr. Louis Falge; alternate, Dr. W. G. Kemper, all of Manitowoc.

Drs. A. J. Shimek, Manitowoc, and H. A. Ott, Reedsville, were elected to membership in the Society.

J. E. MEANY, M. D., *Secretary*.

MARINETTE COUNTY MEDICAL SOCIETY.

The Marinette County Medical Society held its regular meeting January 16th. There was a good attendance and much interest was shown not only as regards the papers presented, which were most excellent, but in many informal discussions on current medical topics.

The year's program was also made out, each member being assigned a subject in which he seemed especially qualified and one that had not been read in the past three years.

Dr. S. Berglund read a paper on *Microscopical Examination of Blood in Disease*. The paper was quite exhaustive on the different blood cells as noted in health and disease, varieties, count in pus cases, number of white cells, in leukemia, myelogenous and lymphatic.

A number of slides showing the plasmodium malariae were presented. The discussion brought out the blood conditions in typhoid, pneumonia, and that the diagnosis of sepsis by blood examination without clinical findings was still far from satisfactory.

Dr. S. E. Wright read a paper on *Continental Medicine*. The paper included much information of interest outside of medicine and told of going over in August by the northern and returning in December by the southern route. The classes are formed and start September 1st, so that men getting to Vienna the first or middle of August must wait until the first of the quarter. He was present at exercises of official resignation of Prof Politzer. (Dr. Wright's account of Prof. Politzer's Work is printed elsewhere in this issue.)

After the meeting an informal smoker was enjoyed by the members present.

MAURICE DUANE BIRD, M. D., *Secretary*.

OUTAGAMIE COUNTY MEDICAL SOCIETY.

The Outagamie County Medical Society held its annual meeting at Appleton, March 3d. Dr. Edward Quick read a most interesting paper entitled, *The Value of The Medical Society*. This paper was so fertile in suggestions for getting the most out of the local medical societies that the Secretary of the Winnebago County Medical Society who was present asked Dr. Quick to read the paper before that society.

Dr. Bernard W. Sippy, Professor of Medicine in Rush Medical College, Chicago, read a masterly paper on *Gastric Ulcer; When Treat Surgically, When Medically.* After reading this paper Doctor Sippy gave an interesting talk on *Cardio-Spasm* which he illustrated by drawings on a blackboard and by demonstrating a pathological specimen in which were shown the characteristic changes brought about by this condition. The society extended Dr. Sippy a rising vote of thanks for the part which he took in the program.

As a result of Dr. Quick's paper the Society decided to start a medical library and reading room to be kept in the Public Library at Appleton which will be available for use by all of the profession of the county. The circulation of a subscription list for this purpose resulted in the annual subscription of more than $100.00. At 7 o'clock the society and some invited guests sat down to a banquet at The Hotel Ritger. Dr. Reeve acted as Toastmaster and the following toasts were responded to:

What the Legislator Thinks of the Doctor, Senator F. M. Wilcox.

What the Business Man Thinks of the Doctor, J. J. Sherman.

What the Teacher Thinks of the Doctor, Prof. R. W. Pringle.

What the Minister Thinks of the Doctor, H. T. Wiltsee.

All voted it the best meeting and banquet in the history of the society.

The following officers for the coming year were elected at the afternoon meeting: President, Dr. H. W. Abraham, Appleton; Vice-President, Dr. J. H. Doyle, Little Chute; Secretary-Treasurer, Dr. M. J. Sandborn, Appleton; Censor for Three Years, Dr. J. S. Reeve, Appleton.

Dr. W. A. Shepherd, Seymour holds over as Delegate to the State Society and Dr. E. W. Quick was elected Alternate Delegate. Drs. Quick, Boyd and Reeve have been appointed as the committee to have charge of the library and reading room. Meetings will be held during the year as follows: Schiocton, May 5th, Neenah (joint meeting with Winnebago County), July 1st., Seymour, September 1st, Appleton, November 3d, Kaukauna, January 5th, Appleton (Annual Meeting), March 2d.

M. J. SANDBORN, M. D., *Secretary.*

WALWORTH COUNTY MEDICAL SOCIETY.

The Walworth County Medical Society held its annual meeting at Elkhorn on January 15, and after discussing an excellent dinner adjourned to the court house where our meetings are usually held.

The financial report of the society for the past year showed a small balance in the treasury, and thirty active and seven honorary members in good standing.

The election of officers for the ensuing year resulted as follows: President, Dr. Wm. H. Hurlbut; vice-president, Dr. Wm. H. McDonald; secretary and treasurer, Dr. M. V. Dewire; censor for three years, Dr. Wm. E. White; delegate, Dr. J. C. Reynolds; alternate, Dr. M. V. Dewire.

The "Post-Graduate Program" for the first quarter was read and thoroughly discussed. It was decided that the program as outlined was hardly suitable for societies holding meetings quarterly, and inasmuch as the plan of the program committee in making each program a symposium upon a definite subject was proving entirely satisfactory, that we stick to that plan for the present at least and the programs be left to the program committee.

Several members who were on the program being absent and their papers not being on hand, the following motion was carried, "That it is the sense of this meeting, that it is the duty of every member of the society who is assigned a subject, and accepts, to be present and read his paper, or if impossible to be present to see that his paper is put in the hands of the secretary so it may be read at the meeting and thus avoid breaks in the program."

The question of the Physicians' Defense Fund was brought up by Dr. Windesheim and after explanations and discussion the following motion was carried: That it is the unanimous expression of this society that all cases be defended (criminal cases excepted) and roll call vote be taken.

All members present voted aye.

The following program was then discussed:

1. Fracture of Clavicle.....Dr. Chas. A. Wright
2. Colles' Fracture.....Dr. J. F. Rood
3. Potts' Fracture.....Dr. F. A. Rice
4. Dislocations and Fractures of Hip.....Dr. B. J. Bills
5. Open Fractures of Leg.....Dr. H. N. O'Brien

The next meeting is to be held at Elkhorn in May or June.

M. V. DEWIRE, M. D., *Secretary.*

WAUKESHA COUNTY MEDICAL SOCIETY.

The Waukesha County Medical Society met at Waukesha, Feb. 6, 1908. The subject of the afternoon, *Epidemic Infantile Paralysis*, was introduced by Dr. Love. He said very little had been written on the pathology of the disease. Paralysis precedes degeneration of the cord. The anterior portion of the cord is most seriously affected. The congestion of the vessels and destruction of nerve cells is followed by overgrowth of connective tissue.

Dr. Davies in discussing *Treatment*, said there were three periods to be noted: 1st, Acute febrile; 2nd, Period of paralysis from its development so long as there is any hope of improvement; 3rd, Treatment of resulting deformities. Rest, quiet, laxatives, cool sponging, cold application to head if marked cerebral symptoms, sedatives in cases of mental excitement. Limbs, if painful, wrapped in wool or cotton. Blisters and counter-irritants were condemned. Strychnine and iodides used in later stages. Massage as soon as soreness leaves, also passive motion. Maintain nutrition and prevent contractions. Tendon transplantation if necessary.

1. The first child shown, two years old, boy, paralysis of left deltoid, had had ten days of fever in October. Treatment consisted of syrup of iodid of iron, galvanic current, interrupted, began two weeks after child taken sick. Recovery.

2. Girl, three years old, cerebral symptoms, right deltoid paralyzed. Improvement.

3. Boy, ten years old, brother of No. 2. Both legs paralyzed, could not walk for six weeks, pain and contractions. Improvement. This boy and girl were the oldest and youngest of a family of four children, the other two were unaffected and no precautions were taken.

4. Girl, four years old, right leg. Massage and passive motion. This was the first case in town. August, 1907. Marked improvement.

5. Girl, seven years old, right leg. First seen after paralysis.

6. Boy, three years old, cerebral symptoms. Held head back and threw hands up in early stage, limbs had to be rubbed constantly, painful. Began in October with diarrhea.

7. Complete paralysis of left arm and both legs in early stage. Pain along spine and rigid neck. Physician was called at midnight; at the next visit, at 8:00 a. m., child was paralyzed. Treated with interrupted galvanic current.

8. Three cases among children at the Fountain House, the "Jumpers"; one, paralysis of shoulder, two, lower limbs affected.

All operative procedures should be delayed for one year after paralysis.

M. M. PARK, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY.

At the annual meeting of the Milwaukee Medical Society, January 14, the following officers were elected: President, Dr. James A. Bach; vice-presidents, Drs. George P. Barth and James Cavaney; secretary, Dr. George A. Carhart; treasurer, Dr. Robert C. Brown; librarian, Dr. James D. Madison; member of membership committee, Dr. Daniel Hopkinson, and councilors, Drs. Gustav J. Kaumheimer, William H. Washburn, Gilbert E. Seaman, Arthur J. Patek, Lorenzo Boorse, and Robert G. Sayle.

MEETING OF JANUARY 28, 1908.

Dr. O. H. Foerster showed a patient with marked atrophy of the skin of both hands and wrists, with telangiectatic changes of the vessels, and hyperkeratosis of the palms, the result of **X-ray burns** produced in treating a psoriasis of moderate intensity. He also presented a case of extensive and deep ulceration following X-ray burns of both feet which resulted from the treatment of some small patches of eczema. This case demonstrated the chronic character of these lesions and their tendency to relapse.

Dr. A. N. Baer demonstrated the prints from a case of **flat foot** which was cured in a short time by exercise and massage with the addition of hot air, active hyperemia, and the blue light for its anesthetic effect.

Dr. P. F. Rogers reported a case of **carcinoma of the neck** in which the jugular vein was entirely occluded by a thrombus in which nests of carcinoma cells were demonstrable. In the discussion Dr. J. L. Yates referred to Crile's method of treating a similar condition by keeping the operation wound wide open and giving energetic X-ray exposures directly to the carcinomatous mass. A cure resulted.

Dr. J. S. Barnes reported three cases of **injury to the eye** by foreign bodies.

MEETING OF FEBRUARY 11, 1908.

Dr. J. A. Bach presented a case to which he had given the name of **Congenital Ptosis of the Structures of the Left Side of the Face.** The patient was a boy of twelve and the condition was a congenital one. There was marked sagging of the tissues of the left side of the face and the ear, which was thick and hung below its normal level, could be moved up and down for

1½ or 2 inches. The skin could be drawn out quite a distance. In the discussion Dr. Foerster expressed the opinion that the condition was one of dermatolysis and that surgical intervention would result in an improved appearance.

Dr. F. A. Stratton presented a paper on *Scopolamine Anesthesia* which was a review of the reported experiences with its use. This paper will appear in full in the JOURNAL.

MEETING OF FEBRUARY 25, 1908.

Dr. H. B. Hitz read a paper on *Meniere Symptom Complex*, describing its pathology, symptomatology, diagnosis, and treatment, and reporting two illustrative cases.

Dr. F. C. Studley presented *An Inquiry into the Subject of Medical Expert Testimony where the plea of Insanity is Made*, at the conclusion of which he read a number of personal letters by men prominent in Law and Medicine on this subject. He advocated co-operation between the legal and medical professions to urge the adoption of such corrective measures as might be determined upon.

MEETING OF MARCH 10, 1908.

Dr. G. J. Kaumheimer presented a boy of 17 years with a mass the size of an egg in the region of the right mammary gland, which had appeared at the end of a cold with very severe cough about a month previously. The mass was dull on percussion, had a slightly cystic feel, seemed to be deeper than the mammary gland, and was adherent to the deep structures. There was slight elevation of temperature, a loss of weight, sweating at night, anemia, and a little enlargement of the axillary lymphatic glands on the affected side. Neoplasm and abscess possibly connected with tuberculosis of a rib were suggested as probable diagnoses and operation rather than exploratory aspiration was strongly advised.

Dr. H. A. Reinhard reported a case of *Abscess of the Lung* in which traumatism seemed to have been a factor.

Prognosis in the Recoverable Forms of Insanity was the title of a paper read by Dr. A. W. Rogers. He concludes that from 50 to 60 per cent. of all cases recover; that the prognosis has improved under modern methods of treatment; that inherited insanity is less hopeless than has been generally believed; that the earlier a case comes under proper treatment the better the prognosis; but that statements regarding prognosis should always be guarded until ample time has passed for careful study and observation of the patient.

G. A. CARHART, M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

At the annual meeting of the Fox River Valley Medical Society, held at Green Bay, January 21, the following officers were elected: Dr. William E. Fairfield, Green Bay, president; Drs. Clarendon J. Combs, Oshkosh, and Maurice D. Bird, Marinette, vice-presidents, and Dr. Robert A. Walker, Menominee, Mich., secretary-treasurer. The society voted to postpone for one year the matter of merging in the district organization.

THE WISCONSIN
MEDICAL JOURNAL
APRIL, 1908.

ORIGINAL ARTICLES.

THE REMOVAL OF GALLSTONES FROM THE SECOND AND THIRD PORTIONS OF THE COMMON BILE DUCT.

BY F. GREGORY CONNELL, M. D.,

Associate Surgeon to St. Mary's Hospital,

OSHKOSH, WIS.

The removal of calculi from the gall bladder was a recognized surgical procedure when the removal of stones from the common duct was thought to be beyond the limits of the surgical art.

Surgical invasion of the common duct was, at the beginning, confined to the supra-duodenal, or first division. Stones in other portions of the common duct, or in the hepatic ducts, which could not be forced into the first portion, were not removed.

With the development of common duct surgery, the terminal portions of the duct were invaded: through the duodenum by McBurney[1] and by Kocher[2], and by the retro-duodenal route, after mobilization of the duodenum, by Haasler[3] and others.

The main hepatic ducts were next incised, and even their finer ramifications have recently been successfully relieved of calculi (Hepatico-hepaticotomy, 1906 Hawkes[4]).

At the present writing it may be said that concretions have been and may be safely removed from any part of the biliary apparatus.

The common bile duct is a tube approximately three inches in length extending from the junction of the cystic and hepatic ducts downward and to the left to terminate in the wall of the second portion of the duodenum, about three and a half inches from the pylorus, after meeting with the canal of Wirsung.

It is divided into three portions:

1. Supra-duodenal, extending from its origin to the posterior surface of the duodenum, where it comes in contact with the pancreas. This portion is from an inch to an inch and one-half in length, approximately half of the length of the entire duct, and with the hepatic artery, some lymph glands and the portal vein lies in the free border of the gastro-hepatic omentum which forms the anterior boundary of the Foramen of Winslow.

2. The Retro-duodenal or Pancreatic portion is about an inch or one and a quarter inch in length, and lies behind the duodenum either in a groove on the pancreas or is completely surrounded by pancreas.

3. The Interstitial or Transduodenal portion is about one-half to three-fourths of an inch in length and passes obliquely through the inner and posterior wall of the second portion of the duodenum. Its terminal portion is usually dilated, the so-called diverticulum of Vater, into which opens the duct of the pancreas, the duct of Wirsung. This diverticulum may be absent but is present in about 9 out of every 10 cases. When present its average dimensions are: length, 6 or 7 mm., diameter, 4 or 5 mm. The duct opens upon the duodenal mucosa by a small opening about 2.5 mm. in diameter, the narrowest part of the common duct.

The orifice is in a papilla. This papilla may often be found by tinuous with the papilla and is conspicuous among the transverse noting a longitudinal fold of the mucous membrane which is convalvulæ conniventes. It may better be located by the sense of touch, as it feels like a small round shot in the mucosa. Ascending infection is, in a way, prevented by the oblique insertion through the muscular wall of the duodenum, and the presence of a sphincter muscle, the so-called sphincter of Oddi, which is an augmentation of the circular muscle coats of the duct.

Common duct obstruction is usually due to either malignant disease, or to calculi, which may be either biliary or pancreatic. Congenital stenosis has occurred.

The signs and symptoms are, as a rule, characteristic, and consist of repeated attacks of colic, nausea and vomiting, high temperature, constant icterus gradually increasing after each attack, acholic stools. Between attacks which may occur with marked regularity, most of the symptoms with the exception of the icterus and a tenderness in the epigastrium disappear. There is a gradual loss of weight, and no enlargement of the gall bladder except in malignant disease.

The differentiation between a stone and carcinoma may be made

after a review of the history and observation of the condition of the gall bladder. Courvoisier's law has been found to hold true in about 80 per cent. of cases and is as follows: dilated gall bladder occurs with malignant obstruction of the common duct, while a contracted gall bladder will be found if the obstruction is due to cholelithiasis.

The coincidence of calculi and malignant disease may give rise to confusion. Gallstones are a most frequent cause of cancer of the gall bladder, but not so of the gall ducts. In 22 cases of carcinoma of the papilla, collected by Edes[5], gallstones were found only 4 times, and in 3 of these the stones were in the gall bladder, and only one in the common duct.

A differential diagnosis between biliary and pancreatic calculus as a rule is not made, though Moynihan[6] has made a correct diagnosis of pancreatic calculus. The diagnosis is made chiefly upon the following points: Colic less severe than biliary colic, diabetes, fatty stools, an absence or late appearance of jaundice, the passage of fragments of pancreatic calculi.

A differential diagnosis as to what particular portion of the common duct is obstructed is neither practical nor essential; a diagnosis of common duct obstruction by stone demands laparotomy and removal of the obstruction, providing that the patient is in condition for the operation.

Even W. J. Mayo[7] mistook a carcinoma of the duct for a stone, until it was exposed by incision of the duodenum, and Fenger[8] did cholecystenterostomy for what was thought to be a carcinoma of the pancreas, only, at autopsy, to find a stone in the ampulla of Vater. Similar errors have been recorded by others.

Concretions in the second and third portions of the common duct frequently escape detection, and they are especially prone to be overlooked in cases in which stones are found in the first portion. Careful palpation of the second portion of the duodenum should always be carried out in all cases of common duct stones. If the lowermost stone removed from the common duct is faceted at its distal end another stone should always be looked for.

Kuster,[9] Fenger,[9] Terrier,[9] Lauenstein,[9] Reidel,[9] Haasler,[3] Kocher,[10] Zeller[11] and others, report cases in which calculi in the diverticulum of Vater have been overlooked at operation. In the list of reported cases of transduodenal choledochotomy, many have been operated upon previously with the removal of stones from the gall-bladder or common duct. If a calculus is found in the lower portion of the common duct a judicious attempt should be made to force it back into

the supra-duodenal portion where it may be removed by simple choledochotomy.

This will usually be possible. In over 2,000 operations upon the gall-bladder or ducts the Mayos[12] have had to perform the trans-duodenal operation for the removal of stone in only 4 instances. In 100 cases recently reported by Kocher and Matte[10] in only 2 cases did they find it necessary to approach the duct through the duodenum. Ochsner[13] in his experience has performed this operation twice and Murphy[14] not at all. This shows the infrequency with which impaction of the stone in the lower common duct occurs.

With a failure to force an impacted stone back into the first portion of the common duct, an effort may be made to pass the stone out of the duct into the duodenum. This is rarely accomplished: Haasler[3] reports such an instance and Robson[15] mentions a case in which the stone passed into the intestine during the manipulations of the operation, and was removed from the bowel by enterotomy. A similar case is mentioned by Pozzi.[16]

An impacted stone in the lower portion of the common duct that resists reasonable effort to dislodge it, must be removed by either retro- or trans-duodenal choledochotomy. Attempts to crush or needle the stone are blind and unsatisfactory; lumbar choledochotomy is no longer employed. Cholecyst-enterostomy or cholecystostomy are merely palliative procedures as they do not remove the stone. Instances may be met with in which the condition of the patient will not allow of any prolonged operative manipulations, and it may then be advisable to establish a provisional or temporary drainage by cholecystostomy, and the obstructing stone may be removed at a subsequent sitting.

RETRO-DUODENAL CHOLEDOCHOTOMY.

Retro-duodenal choledochotomy consists of an incision into the second portion of the common duct without opening into the duodenum. In order to accomplish this it is necessary to reflect the duodenum toward the median line, to mobilize the second portion of the duodenum as is done in Kocher's[17] gastro-duodenostomy.

This mobilization of the duodenum is a partial reproduction of the conditions during embryonal life when the alimentary canal was a straight tube and the duodenum was supplied with a mesentery. The gradual changes from embryonic to mature conditions with the loss of mesentery by a blending of the right meso-duodenum and the primitive parietal peritoneum, after rotation of the first part of the small intestine, is well shown in the diagram of Huntington.[18]

The technique consists of an incision through the posterior

parietal peritoneum about an inch to the right of the descending duodenum. The posterior parietal peritoneum and the duodenum are separated from the retro-peritoneal structures to which they are attached, *i. e.,* areolar tissue. This dissection is best made with the fingers covered with gauze. In normal structures little difficulty will be encountered, the bowel will be separated easily and as the blood supply enters almost entirely at the concavity of the duodenum, the hemorrhage will not be excessive.

After freeing the viscus from the posterior attachments, the rotation is made toward the median line with the hepatico-duodenal ligament as a fixed point above, and the left border of the duodenum over the head of the pancreas, as an axis, which brings the posterior surface of the duodenum with the common bile duct and the head of the pancreas into the field of operation.

Operations in which it is proposed to gain access to the second portion of the common duct by this rotation of the duodenum, have been advocated by Oscar Block,[19] Lane,[20] Vautrin,[21] Haasler,[3] Berg,[22] Cooper.[23]

In certain cases this operation is quite possible and even practicable, and has been performed successfully many times, but with the coincidence of acute or chronic inflammatory conditions or neoplasms of the head of the pancreas, gall-bladder or ducts, stomach or liver, it may be impracticable or even impossible. Even where these conditions do not exist, the fact that the pancreas completely surrounds the common duct in two out of three cases, necessitating a division of the pancreas, is a point against the employment of this manouver.

As Binnie[24] well says: "These operations seem better suited to the dissecting, than to the operating room."

TRANS-DUODENAL CHOLEDOCHOTOMY.

The trans-duodenal method consists of an exposure of the common duct by means of an incision through the anterior wall of the duodenum. One of the objections to this mode of approach is that there is greater danger of peritoneal infection because of the opening of the lumen of the bowel. But with increased experience and with improved technique the fear of opening into the intestine is rapidly disappearing.

Theoretically there is but little difference as regards infection between a direct opening into the lumen of the bowel by a duodenal incision, or an indirect communication with the bowel lumen by means of an incision into the second portion of the common duct, which is directly continuous with the lumen of the gut, and in such a patho-

logical condition that Nature's mechanism to prevent ascending infection is not effectual.

Retro-duodenal incision of the third portion of the common duct, of course, would be practically an opening into the lumen of the duodenum, and the location of the opening is by no means as well suited for proper and secure closure as is the anteriorly placed incision.

A distinction as to whether an impacted stone is in the second or third portion of the common duct cannot always be made.

The duodenum is frequently incised for other pathological conditions, and other portions of the gastro-intestinal tract are incised daily without any great fear of infection. But of all portions of the bowel, it would seem from the experiments of Cushing,[25] that there is less danger of infection in operating upon the duodenum than on any other portion of the entire intestinal canal, as a preliminary starvation may render this part practically sterile.

Another objection to the trans-duodenal method—that of a possible duodenal fistula with death from inanition—has been emphasized by Berg,[22] who states that such a complication frequently occurs and is due, not to defective suturing as much as to a pathological condition of the duodenal wall, in that adhesions may deprive it of its serous covering.

With secure and proper suturing, followed by rational after-treatment, the occurrence of fistula should be no more frequent in this location than it is after incision in other portions of the bowel.

The position of the drainage and its relation to the suture line is all important. The drainage, if used at all, should be placed adjacent to, but not in contact with, the line of suturing.

The technique of the operation itself, is as follows:

A sand bag is placed under the back at about the level of the liver. The head of the table is raised about 6 inches. The Mayo Robson[15] or the Bevan[26] incision is made. A preliminary exploration of the gall-bladder and adjacent structures is made. Gauze packs are inserted in the right kidney pouch and between the stomach and the ducts. Adhesions are separated and the foramen of Winslow opened. Rotation of the liver will be of great aid, if operation upon the first portion of the common duct is necessary. This manouver may tear the liver substance but such tears may be easily sutured with catgut and blunt needle.

As a rule it is not convenient to apply clamps to prevent the escape of intestinal contents, and this is generally unnecessary, as after proper preliminary treatment the duodenum will be empty. The stone

and overlying structures may be grasped between a finger in the foramen of Winslow and the thumb over the duodenum.

The intestinal incision is made in the second portion of the duodenum parallel to its long axis.

After the exposure of the common duct through the anterior duodenal incision, the stone will usually be visible as an elevation or bulging beneath the mucosa of the posterior duodenal wall. The papilla, the opening of the common duct, may be visible below the stone, at the upper extremity of a longitudinal fold in the mucosa, conspicuous among the transverse valvulæ conniventes.

The calculus may now be removed in one of three ways according to its size and location. If in the diverticulum of Vater (third portion of the common duct), and not too large, it may be removed by the method of Collins[27], *i. e.*, dilatation of the opening with forceps, and delivery of the stone through the dilated, but not incised, opening of the duct. If in the same location, but too large to be removed through the termination of the duct, the McBurney[1] operation must be performed.

The papilla may be incised, or the mucous membrane between the stone and the lumen of the duodenum directly over the stone may be incised sufficiently to remove the calculus.

The method of Collins is preferable, but is rarely possible because of the size of the stone, or the pathological condition of the termination of the duct, which will not permit of any considerable dilatation.

Sutton[28] says that he has never found a stone larger than a cherry stone in the ampulla. Moynihan[29] says stone in the ampulla is usually the size of a split pea. In the case reported with this contribution to the subject the stone was the size of a hickory nut. Robson[30] removed a stone the size of a pigeon's egg from the diverticulum of Vater.

When the stone is impacted in the second portion of the common duct, the trans-duodenal operation will be that of Kocher.[2] To remove a stone from this portion of the duct, the entire posterior duodenal wall will be incised, and in addition, the anterior wall of the common duct.

After the removal of the stone it will be necessary to suture the anterior wall of the common duct to the posterior duodenal wall, thus forming an anastomosis between the second portion of the common duct and the duodenum (choledocho-duodenostomia interna), in order to direct the bile into the intestine and prevent its escape into the retro-peritoneal space. Undoubtedly in many cases adhesions will be found between these two surfaces, thus doing away with the necessity of suturing.

The remainder of the operation is similar in all, and consists of a thorough search for other stones. They may easily escape detection; digital palpation with the ungloved finger is to be recommended. Kehr,[31] Mayo[32] and others, advocate the performance of a supra-duodenal choledochotomy and the carrying of a sponge through the second and third portions of the duct, in at the supra-duodenal opening and out through the duodenum (choledochusfege, Kehr). In this way one may rest assured that all the stones will be removed. The hepatic and cystic ducts and the gall-bladder are to be explored very carefully.

The incision in the anterior duodenal wall is now closed according to the recognized method of suture, care being taken to have a secure union. The suture line may be made transverse to the line of incision (duodenoplasty), if stenosis is feared.

The next question is as to drainage: drainage is always indicated. The nature of the operation itself establishes good drainage into the duodenum, but this is not considered as sufficient, therefore a cholecystostomy is added, or, if the gall-bladder is so contracted as not to be available, as is sometimes the case with common duct stones, then drainage may be established by choledochostomy. Either the one or the other is essential.

SYNOPSIS OF CASE.

Biliary colic and icterus one year ago. Second attack three months ago, accompanied by symptoms of perforative peritonitis. Recovery. One week after attack a gall-stone was passed per anum, since then characteristic symptoms of common duct obstruction.

Operation: Gall-bladder contracted with thickened walls; numerous adhesions, and enlarged lymph glands along the common duct. Mass in posterior walls of second portion of duodenum, evidently in the diverticulum of Vater. Attempt to mobilize the duodenum for the purpose of doing retro-duodenal choledochotomy abandoned because of adhesions and hemorrhage. McBurney's transduodenal choledochotomy performed with removal of calculus. Exploration of common duct negative.

Incision in anterior wall of duodenum closed. Cholecystostomy for drainage. Closure of abdomen. Recovery.

HISTORY: Female, age 26 years, housewife, American.

FAMILY HISTORY: Father has gall-stones, otherwise negative.

PREVIOUS HISTORY: No illness or accident. Has lived out of doors a great deal; is an enthusiastic equestrienne; menstrual history negative. Has been married 7 years and is the mother of 2 children,

both labors and puerperia normal. With the exception of an attack of gall-stone colic one year ago, which confined her to bed for a few days, the previous history is negative.

PRESENT ILLNESS: Begins July 27, 1906, with an attack of hepatic colic, in which she was attended by Dr. Geo. E. Newell of Buena Vista, Colo.

After the administration of morphia, followed by laxatives and enemata, she was better until the night of July 28, when she had another severe colic with vomiting, a chill, temperature 104° F., pulse 140 and amaurosis followed by a stuporous condition. Jaundice was present but not marked. I first saw the patient with Dr. Newell at about midnight, six hours after the onset of the attack, when she was in better condition; complained of no pain, temperature 100°, pulse 130; there was rigidity of the abdominal muscles of the right side, tympanites and tenderness on pressure over the region of the gall-bladder; she was still in a semi-stupor.

Immediate removal to the hospital was advised, but was not consented to. She remained about the same, with a gradual improvement in her mental condition and amaurosis until the next night, July 29, when she had another attack of pain with chill, temperature 105°, pulse 150; complained of blindness and again fell into a semi-comatose condition. Tympanites, tenderness and rigidity were marked. Her bowels had moved by the aid of enemata, urine was normal with the exception of the presence of bile. This condition lasted about six hours, and preparations were being made for her removal to the hospital when she suddenly improved, and within 12 hours from the beginning of this attack her pulse and temperature were normal, consequently she did not enter the hospital at this time. Gradually improvement followed and a week after the onset of the symptoms she passed, per rectum, a gall-stone about the size of a bean.

She then was up and around, was irregularly jaundiced, but never free from jaundice; had cholic stools at times; nausea and vomiting became constant after meals with marked gas formation. She had irregular temperature, but no chill. Constant pain and tenderness in epigastrium with loss of weight. Gastric lavage gave slight relief for a time, but as the symptoms persisted and became gradually worse, she finally submitted to operation for the removal of stone from the common duct.

OPERATION: Oct. 1, 1906, D. & R. G. R. R. Hospital, Salida, Colo. M. E. Connell of Chicago and G. E. Newell of Buena Vista, Colo., present. Ether administration by Dr. Harding, Dr. Johnson assistant. The Mayo-Robson incision was made with the patient in the reversed Trendelenberg position.

There were numerous adhesions to gall-bladder, pylorus normal; gauze packs were inserted into the right kidney pouch and to the median line of the common duct. The gall-bladder was shrunken, with thick walls, and of a dark yellowish color; no stones were palpable. The adhesions were broken up and the gall-bladder and bile ducts exposed. The finger was inserted into the foramen of Winslow; the gastro-hepatic omentum was thickened and some enlarged and hardened glands were palpated, one of which was removed. The liver was rotated and in doing so the liver substance was torn.

In the second portion of the duodenum a mass about the size of a hickory nut could be palpated. This was located in the posterior wall of the duodenum, evidently a stone in the diverticulum of Vater. The stone could not be forced back into the supra-duodenal portion of the duct, nor on into the duodenum. An attempt to mobilize and rotate the second portion of the duodenum was made, in this way aiming to bring the posterior surface of the duodenum and the common duct into the field of operation; that is, to do a retro-duodenal choledochotomy. An incision was made through the parietal peritoneum about 1 inch to the right of the descending duodenum, but blunt dissection toward the median line was accompanied by so much hemorrhage, and was so difficult, that it was abandoned. Therefore, transduodenal choledochotomy was performed. With the stone and the overlying duodenal wall held between the thumb and forefinger of the left hand, the anterior wall of the duodenum was incised longitudinally in about the midline. This incision opened the lumen of the duodenum and exposed the posterior wall with the stone forming a prominence beneath the mucosa of the posterior wall.

The papillary orifice of the common duct was not distinguished. While the position of the left forefinger and thumb remained the same, a second incision was made directly over the stone through the posterior mucosa, exposing the stone. Forceps were then inserted which grasped and removed the calculus, which was followed at once by the escape of bile. The common duct was explored, but no other stones were detected. The duodenal mucosa was not sutured. The incision in the anterior duodenal wall was closed securely with a single row of through and through sutures of Pagenstecher. The line of union was examined and cleansed with moist sponges. The tear in the liver was repaired with a mattress stitch of catgut. A typical cholecystostomy was next performed and the abdominal wound closed below the drainage tube. Convalescence was uninterrupted, and when last heard from, 9 months after operation, the patient was in perfect health.

In a review of the literature we find that Kocher,[34] in 1899, was able to collect 29 instances in which the common duct was opened through the duodenum.

In 1902 Thienhaus[33] added 9 to the list; and in January, 1906, Hancock[34] was able to collect 60 cases in which calculi were removed from the common duct in this manner.

I have been able to gather with more or less detail, 77 instances in which this operation was carried out.*

Cases in which malignant disease was found were not included, nor were simple duodenotomies in which no stone was found in the duct, or in which the stone was found free in the lumen of the bowel.

The cases are as follows:

McBurney[34] 11, Kocher[10] 2, Robson[30] 21, Moynihan[35] 8, Kehr[33] 5, Mayo[12] 4, Sprengel[36] 4, Ochsner[13] 2, Ferguson[32] 2, Robinson[37] 2, Petersen[38] 2, Czerny[38] 1, Langenbush[38] 1, Tarrier[38] 1, Hoffmann[38] 1, Pozzi[16] 1, Haasler[3] 1, Thienhaus[33] 1, Dalziel[39] 1, Tinker[40] 1, Page[41] 1, Hancock[34] 1, Lagoutte[42] 1, Sherk[43] 1, Connell 1; total 77.

In the 77 cases above cited there were 10 deaths:

McBurney, 2—1 due to hemorrhage.
1 due to vomiting.

Robson, 5—1 due to acute dilatation of stomach.
1 due to sub-diaphragmatic abscess.
1 due to pyemia before operation.
1 due to duodenal fistula.
1 due to cause not mentioned.

Moynihan, 1—Due to hemorrhage.

Sprengel, 1—Due to duodenal fistula.

Kehr, 1—Due to cholemia and hemorrhage.

In all but two cases in which duodenal fistula occurred the result could not be attributed to the method of the removal of the calculus.

The mortality rate is higher than that following simple supraduodenal choledochotomy, which is between 2 per cent. and 3 per cent., but the trans-duodenal operation is always a method of necessity and never of election. But it may be necessary during any operation on the gall-bladder or ducts.

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*Since making the following analysis, I have learned of 9 additional cases;
B. G. A. Moynihan—5 cases, no deaths (personal communication).
Harry A. Sifton—3 cases, 1 death (personal communication).
J. C. Webster—1 case, no death (Surg. Gyn. & Obst., Dec., 1907, p. 706).
making a total of 86 cases with 11 deaths.

In a further analysis of these cases one finds that 12 cases occurred in males and 38 in females.

As regards the ages:

4 operated upon at ages between 25—30.
3 operated upon at ages between 30—35.
10 operated upon at ages between 35—40.
5 operated upon at ages between 40—45.
10 operated upon at ages between 45—50.
4 operated upon at ages between 50—55.
8 operated upon at ages between 55—60.
3 operated upon at ages between 60—65.
2 operated upon at ages between 65—70.

That stones in the common duct, especially in its terminal portion, were frequently overlooked during operations upon the gall-bladder or upper parts of the duct, is well shown by the fact that in 10 instances mention is made where a previous operation with or without removal of stone had been performed.

In 31 cases single stones were removed from the ampulla, in 17 cases two or more stones were removed from the ducts. In three instances the calculi were pancreatic.

In 1 case the stone was the size of a pigeon's egg.
In 1 case the stone was the size of a walnut.
In 1 case the stone was the size of a hickory nut.
In 3 cases the stones were the size of a grape.
In 2 cases the stones were the size of a hazel nut.
In 4 cases the stones were the size of a cherry.
In 3 cases the stones were the size of a pea.

In 7 cases mention is made of futile attempts to mobilize the duodenum for the purpose of performing retro-duodenal choledochotomy.

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TREATMENT OF CONSUMPTION FROM A SANATORIUM VIEWPOINT.*

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In the presence of the vigorous campaign against tuberculosis of the past few years and the volumes of medical and lay literature on the subject, it might be considered necessary to apologize for a paper embodying the simple details of treatment of the disease, but it can be safely asserted that a correct knowledge of this disease has permeated a larger proportion of the lay than the medical mind. When a medical professor asserts that "it is no use doing anything when consumption takes hold of a man," and a successful surgeon states that he does not believe that a case of consumption was ever cured, it is time the profession awakened to the fact that consumption is a curable disease, that thousands have been cured, and to the importance of a knowledge of the care and treatment of the disease. Ignorance can breed only indifference to the application of the principles necessary to the arrest and cure of consumption. With the spread of correct knowledge among the laity, the responsibility for many deaths from this disease is being properly placed, and very bitter is the denunciation one hears when time has passed under ignorant or indifferent supervision and only eternity stares the patient in the face. Eternity presents great possibilities, but time is of more practical value in the treatment of tuberculosis.

Only ordinary intelligence is necessary to acquire a good working knowledge of the essentials of the modern rational treatment of tuberculosis, and conscientious application of the knowledge will redound to the profit of the patient and to the credit of the physician.

The modern treatment of tuberculosis consists of the systematized application of therapeutic principles which have been recognized in part for ages. Hippocrates speaks of the beneficial effects of sea voyages; Aretaeus in the first century recommended hygienic and dietetic measures; and Sydenham in 1685, quaintly says, "but of all the remedies for phthisis long and continued journeys on horseback bear the bell." So all along the way to the present day fresh air and augmented nutrition have been recommended, but it remained for the

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workers in this field in the past twenty years to realize the importance of properly regulated rest and exercise, and to scientifically adapt them to the cure.

So the essential principles of the cure of tuberculosis to-day consist of abundance of pure, fresh air, increased dietary of the most nourishing food, and the intelligent adaptation of rest and carefully regulated exercise. Each of these principles stands in equal relation to one another and no one of them can be neglected nor ignored without vitally impairing the efficiency of the others.

It is now recognized that tuberculosis is a house disease, the result of breathing vitiated, impure air; that it is invited by malnutrition, the result of insufficient and improper food; add to these the third factor, exhausting physical labor with insufficient rest, and the body is quickly prepared for the specific infective agent, the tubercle bacillus. Abundance of pure air, sufficient nutritious food, and proper rest are essential to the conservation of the vital forces, and it can be safely asserted that were it possible to live a classically perfect life and maintain vitality and resistance at the highest point, no man need fear the invasion of the bacillus of tuberculosis.

The application of the principle of fresh air in abundance is the solution of the problem of ventilation. But it is easily solved: take down the barriers. Practically pure air is to be had everywhere. Since it is necessary to have reasonable protection from the elements, the house must be adapted to the work of bringing air to the patient. Take out the windows, and, if necessary, tear down the walls. If air cannot be brought to the patient, take the patient to the air. Various schemes have been devised to accomplish the result: simple and special tents; cottages part wood and part canvas; a hundred varieties of cottages, each embodying some scheme of ventilation from the simplest to the most complex—all more or less good. Of them all, the tent is the poorest, for more air can be excluded from a tent without effort than from the best constructed house ever built. I have stepped into a tent containing two patients, the atmosphere of which was intolerable, smelling worse than the average unsanitary cow-barn; and I have seen a hopeful case go to the grave while taking the "open air treatment" in a tent which had the flaps nailed down and the snow piled two feet up the fly, the exhalations of the patient and a red hot stove producing an atmosphere which was nauseating. However, the tent may do good service under proper medical control.

The most satisfactory method is the porch system, especially if the porch, which is open on two sides, communicates with a small dressing or sitting-room, which can be kept comfortably heated dur-

ing the colder months. The porch may be placed on any side of the house, but preferably on the south side, so that it may have the greatest diurnal exposure to the sun. It should be protected in summer by screens and curtains, and in winter by storm sash on hangers. These sash may be removed should the patient attempt to shut out the air, for not all patients make an honest effort to avail themselves of the cure.

An important question is—how much open air should patients receive? I can only answer: If there is any part of the twenty-four hours that they suspend animation and stop breathing, take them in and put them in the cellar, if convenient, but for the cases with which I am familiar, twenty-four hours a day of fresh, pure air is all too little. The importance of this element in the treatment cannot be over-emphasized. No drug or drugs in the whole pharmacopœia can compare with its effect upon appetite, fever, cough, expectoration, and night sweats. The character of the air, provided it is dust-, smoke-, and germ-free, need not concern us. Cold is no bar—its tonic, stimulating effect is very apparent in the majority of cases. It will surprise you how rapidly these people develop indifference to low temperatures. I have known a patient who had never slept with a window raised, on the third day after gradual introduction to the open porch, when the temperature was twenty degrees below, complain of suffocation when brought into the warm room and ask to be again taken into the delicious atmosphere out-of-doors.

Last winter my own patients actually enjoyed 38 below and grew fat. Sufficient bed-clothing should be supplied, hot bags if necessary, and the specially sensitive may use vizors and gloves. Paper-lined blankets and night-clothes are to be had and will be found very serviceable. My own experience suggests that head-gear of any description is not to be advised. During last winter I observed only two cases of nasal "colds" and in each instance the patient wrapped the head in some kind of covering. During the day in the cold weather of this climate, the least amount of clothing consistent with body-warmth is to be advised. For this purpose a single coat of cheap dog-skin or other fur is the most satisfactory. Fur caps are not necessary; the best is a soft felt hat or cloth cap. While sitting in the open the feet are best protected by a fur robe or bag into which a hot bag may be placed. These two extras are all that are necessary for the coldest weather in this climate. At no time should the patient permit himself to become chilled. Before that occurs he should avail himself of the warmth of the house which should be close to his place

of exposure. A few minutes in a warm room will prevent chilling and furnish fresh desire for the open.

The question of climate naturally suggests itself, but undoubtedly too much importance has been awarded it in the past as an essential to the cure. The ideal climate does not exist and no specific climate has ever been found. Tuberculosis develops in every habitable region of the globe, and cures have been made under every conceivable climatic conditions where scientific methods have been employed, and the percentages of results average about the same. It is generally conceded, except by the advocates of special climates, that a cure accomplished in the home climate is advantageous to those who desire to remain where they contracted the disease, and is usually more lasting. A certain percentage will be found to profit by change. Those who do not improve in one climate should seek another which furnishes possibly better conditions, but the indiscriminate advice of change of climate should cease until a careful study of each individual case has been made, or until we possess a more definite knowledge of the specific influence of the factors which produce climatic variations.

In every case of tuberculosis there is a condition of malnutrition, or disturbed metabolism. A large percentage of these cases have suffered for a long time from digestive disturbances, accompanied by poor appetite and loss of weight. The first effort of treatment should be exerted in restoring appetite, improving digestion, and inducing the patient to take food of such quality and in sufficient quantity to restore the nutritive balance, and if possible, show a balance in favor of the patient. The majority of these people have been improperly educated in dietetic methods and they must be taught when, what, and how to eat. The last ten or fifteen years have witnessed the development of a race fed on factory-made-saw-dust, breakfast-food bunk, and the man who sits down to a breakfast of good, old-time character and proportions has to apologize for his grossness and vulgarity. So these people most frequently present themselves with an under-exercised, undeveloped digestive apparatus, enfeebled and unfitted to support life under ordinary conditions by lack of use. They have to be taught that exercise of function develops the power and usefulness of an organ.

We hear a good deal of hyperalimentation or stuffing as practiced in the treatment of tuberculosis. When we consider that beyond the support of the ordinary vital processes, we must combat the destructive processes of the disease and at the same time furnish sufficient to restore the patient to the normal, the importance of a greatly increased dietary becomes apparent. When this has been accomplished, we no

longer have to urge the patient—it can be safely left to natural appetite, which comes from open-air life, increased vigor, regular habits, and proper mastication. I have seen a patient who could not eat a square meal in a whole day, in obedience to instructions sit at the table for an hour automatically chewing and swallowing, who to-day can eat from 3½ to 4 pounds at a sitting with gusto. Many may say that this is unreasonable and unscientific. The history of such a patient proves more than volumes of argument:

Relapsed Case, 35 years of age; both apices involved; demonstrable cavity in the right lung; almost continuous coughing; expectoration over one-half pint per day; marked emaciation; strength impaired to bed-ridden degree; night sweats; appetite poor; temperature on admission—afternoon 103.5°; weight 117 pounds. Confined to bed five weeks until temperature was between 99° and 100°. Made only slight gain in weight for two months. To-day, nine months after beginning treatment, patient walks four miles a day on three meals per day; weighs 180 pounds, a gain of 63 pounds; cough has almost disappeared; expectoration does not reach one dram per day and temperature normal; both lungs clear and cavity healed; sputum negative for the first time in two years.

The rule of three meals a day should be followed, with lunches between in selected cases. In the early days of treatment and in those cases which take very little at regular meals, lunches are permitted until the weight reaches normal. My own experience demonstrates that the larger number do better on three wholesome meals a day, supplemented by milk and eggs if found necessary to bring the diet up to the required point. Supplementary diet should never be given until the close of the regular meal.

The diet should consist of fresh meats, roasted or broiled, chicken, game in season, pork, bacon and fish, sufficiently often to present variety; cereals; fresh vegetables and fruits; and desserts of simple, nourishing character. With only occasional exceptions from one to three quarts of milk and from three to eight eggs a day should be taken.

Lunches are best made up of milk and eggs, wafers, nuts and fruit. The eggs are dropped into or beaten up in milk, taken raw. Where there is objection to eggs in this form, they can be successfully given in grape-juice, orange or lemon juice, catsup, or anything to get them down.

Cases with temperature confined to bed are best fed upon liquid diet at frequent intervals, say every three hours. Patience and in-

genuity will often be taxed by cases of personal idiosyncrasies and enfeebled digestion, which is so common to these cases; but persistence will win in even apparently hopeless cases.

Every case should at once be put to bed until a careful record of temperature, pulse, and respiration is made. If the temperature is normal or not above 99.5° they may be permitted up on the third day for meals, but must return to the porch and rest in a reclining chair in the open air. Quite a number of cases present themselves with no temperature and a history of no temperature. These cases are the emaciated class, exercising, following the advice to "keep out in the open air." Frequently these cases develop temperature about the third day of absolute rest. Exercise should be governed by temperature and pulse. Temperature over 99,° under 100°, should be limited to sitting up for meals followed by rest in reclining chair on porch or in the open air; with a temperature persistently over 100°, the patient is confined to bed until it remains normal or nearly so for a week or ten days, when the patient is permitted to get up again. As soon as the temperature does not pass the 99 point a walk of five or ten minutes may be permitted; if no rise occurs this is gradually increased by five minutes *every day or so* until a walk of several miles is indulged in. An hour of perfect rest is enjoined after breakfast and dinner in all cases, and of fifteen minutes before meals if possible. Temperature should be taken in mouth on return from walks. Taken by mouth the thermometer should be exposed for 10 minutes in summer, 15 to 20 minutes in winter. One to three minute exposures are absolutely unreliable and may account for many of the cases which give no history of temperature.

Pulse of 100 or over is an indication for restricting exercise; if persistently over 100 the patient should be confined to bed until the heart action is under control. Rapid respiration, 25 or more, should restrict exercise to the minimum. Under no circumstances is the patient permitted to exercise to the tiring point, which is avoided by frequent rests during the walk.

Stained sputum should prohibit exercise of any degree, and actual hemorrhage calls for confinement to bed until every sign of trouble has disappeared.

Drugs hold only a secondary place in the treatment. Fever, sweats, appetite, and cough usually respond promptly to open air and rest. When cough does not yield, and is purposeless in character, disturbing the patient's rest, codein in just sufficient dosage to control it is of great value. The tonics, iron, arsenic, anything which does not

destroy appetite but will augment the resistance, must not be neglected. Hemorrhages must never be ignored, but should receive prompt attention. Stained sputum needs only rest and small doses of codein, if accompanied by racking cough. In severe hemorrhage, the ice-bag over the bleeding area, if it can be located, and amyl nitrite, I have found of service. In very severe hemorrhages which are liable to flood the lung, codein or morphia should not be given. Pleurisy and pneumonia should be treated by rest in the open air, counter-irritation, and according to indications.

In the treatment and cure of no other disease does the personal element assume such proportions as a factor of success. Tuberculosis is essentially a chronic disease and even the incipient cases demand prolonged treatment to ensure permanency of result. Half-way methods or indifferent, abortive application of the best must always result in failure. The physician must have a thorough knowledge of the disease and the essentials of cure, and beyond that the personal qualifications necessary to their application. He must be willing to give much undivided time and attention in supervising and instructing each individual case. He must possess himself of patience, perseverance, and enthusiasm in the work and must be able to instill these virtues into his patient. Personal supervision is an absolute essential to the successful management of a case of consumption, and guidance of either the physician or a trained nurse, who has a practical knowledge of the disease, is a necessity. This supervision must be applied to every act and function of the patient's life. General principles are of indifferent value; as a rule they are applied only to the question at issue and future deductions are rarely made. Experience with consumptives suggests either a marked degree of irresponsibility inherent in those who develop consumption, or irresponsibility is a feature of the disease. To obtain results under such conditions demands not only time but unremitting attention to the minutest detail. Nothing should be expected of the patient himself until his education is well advanced, except subordination and an honest co-operation in carrying out every suggestion that will aid his recovery. One indiscreet act may nullify months of care and wreck the prospects of a most promising case. To-day enthusiastic, ardent, intelligent co-operation reigns, to-morrow all is lost by an hour's depressed indifference. To guard against this requires the constant supervision of physician or specially trained nurse, who understands not only the physical necessities, but is able by well regulated exhibition of sympathy and encouragement to control the psychologic conditions.

It is in the application and enforcement of these principles that the sanatorium has decidedly the advantage over the home. By going to a sanatorium the patient has the advantage of complete change of environment. The institution is especially adapted to the mode of life necessary, presents every facility, especially in winter, for the open-air life with the least degree of discomfort to the patient himself and those about him; he is in daily contact with others striving toward the same goal, and is stimulated and encouraged by their success or warned by their mistakes and failures.

Not the least among the advantages of treatment in a sanatorium are the educational and supervisional features. When a patient presents himself, before everything else his habits in regard to expectoration are inquired into; he is instructed never to spit anywhere outside of receptacles for that purpose. The penalty for infraction of this rule is expulsion from the institution. He is taught that careless spitting not only exposes others to infection, but especially himself, and under no circumstances must he tolerate it in others. He is furnished with sputum receptacles which are of such a nature that they may be entirely destroyed by fire. Paper napkins, which are used only once, then placed into glazed paper bags, or paraffined card-board sputum boxes are the most satisfactory and the least objectionable. Rags should never be used nor spittoons which cannot be entirely destroyed with their contents.

The sanatorium patient has his whole life ordered; nothing is left to chance, and misinterpretation of instructions is avoided by personal application of principles under supervision. The rules of the institution become by practice and example the habits of the individual; to do the right thing becomes an instinct and not a conscious effort. The principles of prophylaxis are taught; not to cough at the table, but to leave the room for the purpose; never to cough into the faces of others nor into books or newspapers; in short, in the words of Knopf, "The practice of common politeness which covers the whole field of the prophylaxis of consumption." In the course of his treatment he is educated in the use of the thermometer, interpretation of its reading and of the pulse, the necessity for abundance of fresh air, the importance of rest, abundance of good food and proper clothing, regular hours for meals and sleep, and personal cleanliness.

There are two other important things which are essential to the successful treatment of consumption: early diagnosis and time. The second is very much governed by the first. The early diagnosis of tuberculosis needs more thorough, honest application of method, and the time is near when the public will demand it. The day is past when

the physician can, with credit to himself, dismiss a case with a few whacks under the clavicle and the statement that nothing can be found. Complete auscultation of the chest must be practiced; careful study of temperature at rest and influenced by exercise; sputum examinations in every case; and the tuberculin test in doubtful cases must be employed.

The rule is that the chances of recovery are in inverse proportion to the time of beginning treatment, and I should add in proportion to the amount of time devoted to the cure. Too little stress is laid upon the importance of this and it is not sufficiently appreciated by the general practitioner. It is safe to say that seventy-five per cent. of failures to effect permanent cure has been due to ignorance of the vital importance of this one element.

It used to be said that consumptives improved at first on any change of treatment, even a change in water supply, but they died in spite of the improvement. This was true. We have all seen a tuberculous patient go away, change his whole method of living for three or four months, gain from fifteen to twenty pounds, and return the picture of health. He went immediately back to his occupation and unconsciously to his old methods of living, and before another year the registrar of vital statistics recorded the result. The fault was not with the quality of the treatment but with the quantity. None of us possessed sufficient knowledge of the importance of time to insist on a continuance of the treatment for from three to five years, and had we proffered such advice would have been laughed at by the victim himself. It is a difficult thing to convince a patient that there is no royal road to cure and few possess the self-denial and tenacity necessary to persistence in face of evidences of good health and the daily remarks of friends that there is nothing the matter with them. We have heard much of the power of the instinct of self-preservation but it flourishes only before the grand-stand of life; modest, unapplauded effort is not its line. So as a force in stimulating effort and persistence it must be ignored, nor can the staying powers be gauged by the initial enthusiasm of the individual case. No case can rely on its own resources; success comes only from constant supervision and encouragement from without. The physician who undertakes the treatment of a case at home must understand the necessity for several years of care in every case, unremitting even after apparent cure, and instill this fact into the patient's mind by iteration and reiteration. The idea is very prevalent among patients with tuberculosis that a few weeks' treatment is all that is necessary to restore them to health. The physician should as tactfully as possible, but in no uncertain terms, impress upon each

case the chronic character of the disease; that it takes months or a year to arrest the disease; years to establish reasonable immunity from relapse, and that return to former habits and methods of living invites relapse or exposes to reinfection.

When we look for results of treatment, only the statistics of sanatoria, where the principles of treatment are systematically applied, are available. Roughly summed up, sanatorium results show from 45 to 65 per cent. apparently cured or arrested, and about 25 per cent. much improved. These results, of course, depend much upon the classes of cases treated, which vary in every institution from time to time, also upon the length of stay. Many cases leave a sanatorium after three months much improved, with every prospect of cure if the principles of right living are persisted in, but the best results are obtained on those cases which remain under supervision and control for six months or more. Many cases leave institutions "arrested" or "much improved" which could be classed among the cured by a few months more of care and treatment. Under proper conditions of living and intelligent medical supervision after returning home, these cases exhibit most gratifying permanency of result, are capable of a greater or less amount of work, and lead healthful and useful lives.

In conclusion let me impress upon you that:

Tuberculosis is a curable disease in the great majority of cases when given an *early diagnosis,* if the proper treatment is begun *without delay,* intelligently and vigorously prosecuted; if we make conscientious use of all the means at our command; if the treatment is persevered in in spite of every discouragement, and the physician as well as the patient is willing to devote years to the work.

INJURY TO THE KIDNEYS.*

BY W. E. FAIRFIELD, M. D.
GREEN BAY, WIS.

Proven injuries of the kidney are sufficiently rare to warrant their citation without apology. I wish, therefore, to briefly report 3 cases—two of positive, and one of probable injury, that have come under my care at St. Mary's Hospital.

CASE I—Mrs. X., age 47, was crossing the railroad tracks in a wagon when she was struck by a train and thrown in a jack-knife position—landing under the box of the conveyance. Though there were not many bruises upon the body, there was great soreness—particularly marked in the region of the liver and right kidney—with some blood in the urine, and symptoms of shock or hemorrhage. Improvement did not take place, but rather a retrogression—with chills and some fever. An ill defined tumor was present in the right kidney region, tender to pressure, but not fluctuating.

Incision in the lumbar region exposed a dislocated kidney with a torn capsule lying in a hematoma resulting from a tear in the kidney tissue proper. The space was thoroughly cleansed, the kidney tear closed with fine gut, and the capsule anchored in the incision after the usual method. A small wick gauze gave drainage for two days, when it was removed. Recovery was prompt and the patient has remained in good health two years.

CASE II—Mrs. B., age 32, injuried by being thrown from a carriage, striking her side upon a rail. Accident occurred when she was

24 years old and the patient then weighed 190 lbs. Usual symptoms of ruptured kidney including blood in the urine. Convalescence slow and never perfect. She lost flesh and had fever culminating in a discharge of pus into the bladder. Was in a Chicago hospital at the time and was there advised to go to the country. When I saw her she had a well developed infective fever. She had lost 60 lbs., and from a woman of perfect physique she had become an emaciated object of pity. A well defined tumor was present, which, upon incision carried through the lumbar region, proved to be a purulent kidney with the stone here shown lodged in the pelvis and obstructing the ureter. Drainage resulted in an immediate amelioration of the symptoms. In spite of dietary and other precautions, there was almost complete urinary suppression on the third day with severe pain in the right kidney. The condition soon improved and the patient returned to her home after four weeks. There was complete closure of the wound and the patient appeared in good health. Recent advices state that she remains well.

I think it is fair to presume that this was a case of trauma, hemorrhage, infection, stone formation, occlusion and pus formation.

CASE III—Miss E., age 11 years. Came to me with the following history. While playing with some companions, four weeks before I saw her, she caught her foot in a wire netting and fell heavily on her face, the abdomen over the right kidney region coming in contact with a board which projected from the sidewalk. She was running at the time and fell quite heavily. Contact with the board did not produce more than a slight discoloration externally. The constitutional symptoms were those of severe shock and internal hemorrhage. Blood was passed with the urine for 24 hours. Then there was a gradual recovery for a few days, followed by the appearance of fever, and a loss of flesh. When she came to me there was a well marked tumor in the right kidney region. Operation was performed after the usual preparation, through a lumbar incision. The tumor consisted of blood clot and urine. The kidney had been torn completely across, through the pelvis. There were other tears of lesser moment and the capsule was almost completely detached. I removed the kidney with the upper end of the ureter. (See figure.)

Recovery was uneventful—except that there was almost complete anuria for 24 hours. This operation was performed on October 4th, 1905, and I have purposely delayed its report until the present time. I present the patient to the Society.

The girl is attending school where she is distinguished by brilliant scholarship and close application to study. She remains as healthy as before the operation.

DIAGNOSIS AND CLINICAL HISTORY OF PUERPERAL SEPSIS.*

BY GEORGE SAUNDERS, M. D.,

SUPERIOR, WIS.

The symptoms of puerperal septicemia are so well known to all of you that I hope you will pardon me if I fail to bring out anything new in this brief paper.

The symptoms which Professor Verriar of Paris taught his students 25 years ago are the following: From the third to the fourth day after parturition the woman experiences a rigor followed by an ephemeral fever which used to be attributed to the fluxion of the milk and was called "milk fever." He taught that the true characteristics of puerperal fever are: chill with rigor, rapid pulse, temperature 103° to 105°, furred tongue, delirium, and diminution of the lochia. In mastitis fever he says: The tongue is soft, large, and has a light fur on it. Temperature 101° to 104°. The breasts are swollen hard and extend to the axilla. The skin is moist, but not so much so as formerly when diaphoresis was induced. The lochia diminish but do not stop entirely, as in puerperal fever, where there is always fever from the genitals.

Among the earliest theories of its origin, Hippocrates was first to state that, the lochia being checked by inflammation, or by spasm of the vessels, septic materials were retained in the blood. The uterus and other organs became diseased, and there finally resulted putrid fever.

In the 16th century it was taught that metastasis of the milk was the cause of puerperal fever.

Leischman in 1873 taught that peritonitis was the most common of symptoms. He said that it was a great mistake to think that shivering was always indicative of an inflammatory attack. A chill, he adds, may be due to a uterine phlebitis, or vaginitis, as from protracted labor.

About 1746 a dreadful epidemic of puerperal septicemia appeared in Paris with very high mortality. During the beginning of the 18th century a violent epidemic occurred in most of the principal cities in Europe. In Vienna the mortality was as high as one death in six cases.

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*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, August 23, 1907.

In those days bleeding was resorted to quite freely. In 1789 a Doctor Gordon of Aberdeen, Scotland, stated that the blood was the medium whereby the woman became poisoned. He proved this by the heroic bleeding that he practiced. He wrote that when he took away only 10 to 12 ounces of blood the patient always died, but when he took away 30 to 40 ounces of blood they invariably recovered. Following the bleeding he produced a looseness of the bowels.

Oliver Wendell Holmes was the first to proclaim that puerperal fever was contracted from an outside source. Take the average case of puerperal sepsis and we will almost invariably find the following symptoms present: a severe chill with rigor, coming on any time after 36 hours; headache and backache; temperature running from 102° to 105°; dry, furred tongue; anxious expression, rapid pulse, nausea, tympanites, and frequently tenderness over the uterus; lochia scanty. It must be remembered that puerperal peritonitis, whether local or general, is due to infection by one of two routes, aside from instances where peritonitis complicates the puerperal state, due, for instance, to rupture of an ovarian or tubal abscess. The modes of infection are: by direct infection from the uterine cavity or by lymphatic absorption. It is *absolutely essential* then to differentiate a local from a general peritonitis. By digital examination (vaginal and rectal) it is fairly easy to determine whether or not an abscess exists around the uterus or its appendages. The abdomen is less tympanitic. There is less general tenderness. The temperature and pulse do not run so high in abscess cases.

We also must be able to differentiate an acute mastitis from puerperal sepsis. In mastitis, as a rule, one or both mammary glands will be found to be hard and indurated in places, quite tender and swollen, temperature may run as high as 104°, very rarely is there diarrhea; the uterine symptoms are absent.

In a local peritonitis the patient's condition as a rule improves after the fourth or fifth day of sickness and in many cases the temperature will drop to normal, even with an abscess in process of formation in the pelvic cavity. Not so with true puerperal sepsis: the temperature will keep up for days and days without any intermission, until in severe cases the patient succumbs to the disease. We may get puerperal sepsis following or accompanying scarlet fever or measles. In either case there are two modes of infection: The first is through the ordinary channels of infection, and in the second class the infection takes place either through the puerperal endometrium or through an open wound. The period of inoculation is very short; the eruption is well marked as well as the desquamation; the prognosis is very bad

when taken in conjunction with puerperal cases. Especially is this true of puerperal scarlet fever. Erysipelas is another much dreaded complication of the puerperium, and we must be always on our guard because of the numerous lacerations and abrasions which occur during childbirth, rendering the woman quite susceptible to it.

We may also have tetanus develop during the puerperium, although it is a somewhat rare complication. In Bombay, India, a few years ago, a series of 232 cases was reported in three years accompanied with an alarming fatality. In Berlin, in 1871, in every 1,000 births there were 12.5 cases of tetanus, but in 1890 there were only 2.69 cases to 1,000 births. The disease usually develops late in the puerperium.

Puerperal fever has its origin in a puerperal endometritis or an infected laceration of the cervix, vulva or vagina. The cavity of the uterus is usually coated with a more or less dry, or less often a purulent fluid, or a yellowish, or yellowish-green coating. In some cases the coating is confined to the placental site, which is covered by a firmly attached membrane. The cervical mucosa may be similarly diseased either in a diffuse interstitial inflammation with purulent infiltration of the interglandular tissue, or more often as an inflammation of a small laceration.

In the first instance the mucosa is covered with a puro-fibrinous membrane, from which infection extends through the lymphatics. The portio vaginalis is frequently affected in the same manner. Another complication of the puerperium which is not so uncommon as we are apt to think, is gonorrheal puerperal sepsis. The mortality is low. I am unable to state just what it is, but the morbidity is high, leaving more crippled and invalided patients than any other disease I know of. As to the time of onset of the initial chill, nothing definite can be said. I will here report three cases in my own experience having widely varying onsets.

CASE 1. Primipara, age 24, normal labor, small laceration which was immediately repaired. At the end of forty-eight hours following labor, patient had a severe chill with rigor. Twenty-four hours after rigor a whitish membrane resembling a diphtheritic membrane was observed in the vagina, which gradually spread up to and around the cervix until the parts were so distorted that the os could hardly be distinguished. A severe diarrhea persisted during the whole sickness. Temperature running up to 105°, rapid pulse. Patient finally died at end of eighth day of disease.

CASE 2. Multipara, mother of ten children. Patient had a rapid birth, completed before my arrival at the bedside. Fourteen hours

after labor she had a severe chill, followed by a temperature of 104.5°, and pulse 140. Tenderness over the uterus, lochia plentiful, but foul in odor. After 25 days of fever patient became convalescent.

CASE 3. Multipara, age 30, full term, normal and easy labor. Normal puerperium for six days. On the seventh day she had repeated chills with rigors which kept up for about 36 hours. Temperature ran up to 106.2° at times. Pulse 140 to 150, violent delirium, abdomen enormously distended in spite of repeated doses of calomel and salines. She also had three full doses of antistreptococcus serum, but died on the fifth day of the disease. I neglected to make a microscopical examination of the uterine discharge, but considered it of possible gonorrheal origin.

SURGICAL TREATMENT OF PUERPERAL SEPSIS.*

BY J. M. DODD, M. D.,

ASHLAND, WIS.

In taking up the picture of puerperal sepsis that Dr. Saunders has painted in your mind, we have before us a septic wound to treat.

The object of treatment is the same as in any other septic wound: first, the removal of the infectious matter as far as possible; second, the neutralizing as far as possible of the septic matter that remains; and third, providing drainage.

Now, we find these patients in all sorts of conditions. In the majority of cases we find them at home, where there are very few conveniences for doing an antiseptic operation. But, wherever we find them, about the same thing has to be done. We must place the patient in a position so that the field of operation is accessible, and in a suitable light. The parts are scrubbed and irrigated, and the parturient canal examined.

The lesion may be a slight laceration of the perineum, or it may be anywhere in the genital tract, even up to and involving the entire uterine sac. No matter where it is, the entire uterine canal should be treated the same, because the treatment, if properly carried out, will not spread infection.

In some cases it will be necessary to anesthetize the patient. I think if very thorough treatment is necessary, an anesthetic is desirable, because the treatment is generally painful.

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*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, August 23, 1907.

The next step will be a dilatation of the os, sufficient to get through into the uterine cavity. Then will follow the removal of any detached septic masses, or any that may be easily detached.

We find many opinions on the question of the instrumental treatment of puerperal sepsis. Many are opposed to any sort of instrumental interference with the uterine surface when there is a septic condition present. It has been my experience that the septic membrane should be attacked very gently. If it bleeds readily, curettage should not be done. I think that wiping the lining of the cavity off with a sponge is probably better than curetting it off, for the reason that in separating the masses of necrotic tissues with the curette, you open up new portals of infection and new currents are set forward in the lymphatics, and as a result you get a chill and a rise in temperature very soon after the treatment.

Irrigation, through a dilated canal, is, I think, altogether the best method to pursue, and of course we use antiseptic fluids for this purpose.

I doubt that there is a great deal of virtue in the application of antiseptic solutions to the surface of a septic wound, because it does not get to the seat of the trouble, which is deep in the tissues and cannot be reached by anything applied to the surface; but, anyway, it is a good idea to irrigate the surface with an antiseptic, if for no other purpose than that of washing away bacteria and debris, and destroying the germs as much as possible. Irrigate this canal very freely and frequently, after which there must be some provision made for neutralizing the toxins that are still there, and for inhibiting the growth of the germs; that can be done best by some of the iodin preparations. Iodoform gauze is one of the best things to use.

I think iodoform gauze made by the glycerine method, when packed into the uterus, draws away the fluids and toxins that are in the tissues, and inhibits the growth of the germs with which it comes in contact. I sometimes have noticed in these cases, that on introducing a speculum you do not see much discharge—possibly you may see a fairly normal os, but if you take a probe, lift up the cervix and dilate the canal a little, you will get a discharge.

I have seen what appeared to me as much as two ounces of septic matter run out of the os after it was drawn forward in this manner.

The tendency of the uterus is sometimes to double on itself, or turn its os back on the posterior wall of the vagina, in a way that holds the discharges in the uterine cavity. I have before now put a glass drainage tube into the uterine cavity, leaving its free end in the

vagina. I sometimes put in a rubber drainage tube with its end left in the vagina, or even bring it outside, so that subsequent irrigations may be made more readily.

It is very important to devise some means whereby the discharges generated in the uterus may escape.

There are some cases in which the infection is so violent that there is little evidence of resistance in the tissues of the uterus. The uterus is soft and flabby, and there is no contraction of the uterine muscle. These are the cases that are most severe. If I find a case in which the uterus is contracting, where I can feel it distinct and hard above the pubes, I think that the prognosis is better; but on the other hand, if we find the uterus soft and flabby, with no contraction to its muscular parts at all, its lymphatics are open and very active, and systematic disturbance very great. In such cases I believe it is best not to stop with clearing out and disinfecting the genital canal, but to open the cul de sac as well.

That is an operation that can be very easily done, at the same time that we are clearing out the canal and treating it. The opening can be made in the cul de sac very easily, by drawing the cervix forward, and cutting through with a curved scissors. It is true that you must be careful not to open the rectum, but by being careful I think there is no difficulty in opening the cul de sac without injuring the rectum. In such cases we usually get a discharge of peritoneal fluid from the cul de sac, and after that is open and the discharge that is present allowed to escape, the fingers can be introduced to examine the lymphatics which run up through the broad ligaments on either side. If we find any considerable swelling there, as we do in some cases, especially after they get a little old, it may be best to open into the mass and get drainage into it. This can be done with the finger assisted by a blunt curved scissors.

After opening and exploring the cul de sac, pack it with iodoform gauze, the same as you do the uterus. I heard Pryor, of New York, say that he had put as much as eight yards of gauze into the cul de sac of Douglas, and up into the abdomen. I did not understand how he could get that much in there, and I have never found it necessary to try to get in as much as that. A half yard of gauze is quite sufficient, I think, and that with its hygroscopic effect is beneficial, the same as it is in the uterine cavity. I believe that in all severe cases this should be done, and after 48 hours the gauze removed and the womb possibly repacked, unless there is marked amelioration of the symptoms.

The irrigation should be repeated at least once every twenty-four hours while the fever is high, and discontinued as soon as the general condition of the patient is improved, and when in the judgment of the physician it is safe to discontinue it.

MEDICAL TREATMENT OF PUERPERAL SEPSIS *

BY H. L. ROSENBERY, M. D.,
WAUSAU, WIS.

There is no disease which the physician is called upon to treat that so thoroughly exemplifies the old adage that "an ounce of prevention is worth a pound of cure."

It is fortunate indeed that cases of puerperal sepsis are rare as compared with twenty-five years ago. True, there are some cases, indeed many more than there should be, and we must expect these as long as physicians are careless and as long as filthy and ignorant midwives are allowed to practice. Still there are some cases not directly chargeable to the physician or midwife. The lack of personal cleanliness on the part of the patient herself may become a source of infection. This source can only be overcome by inculcating in our patients the crying need of absolute cleanliness.

Another source of infection, and a much more frequent one than lack of personal cleanliness, is chronic pelvic inflammation which existed before the advent of parturition. Old gonorrheal inflammations, as pyo- and hydro-salpinx, may be ruptured and cause sudden and terrific inflammations, which should be treated surgically without delay. In my own personal experience these chronic infections have often been the cause of puerperal sepsis. In cases like these the doctor is blamed for the sin of the recreant husband.

From the variety of causes in which one may meet this much dreaded condition it is fortunate that it makes but little difference as to the medical treatment. The various conditions must be weighed that the general practitioner may know when the medical case becomes a surgical one. There are few questions more perplexing to the physician than the one to determine when to call in the surgeon and advise surgical treatment in these cases.

Within my recollection the change of method in treating these septic cases has undergone a wonderful transformation. As students we were taught to rely upon the opium treatment. It was advised to

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*Read before the 61st Annual Meeting of the State Medical Society of Wisconsin, Superior, August 23, 1907.

give opium in peritonitis until the respirations were reduced to ten, or even eight—respiration alone being the guide; opium was the sheet anchor, and now it is not supposed to have any value except as a narcotic and stimulant.

When called upon to-day to treat a non-surgical case of septic infection, I would advise as follows:

First—Clear out the vagina and uterus of all clots and debris by the introduction of the hand if possible, because the blood coagula are a good culture medium for the various bacteria that cause these infections. A culture should, if possible, be made to determine the specific type of bacteria present. While the process of clearing out the uterus is going on it is advisable to give some antiseptic douche; I prefer one dram of lysol to a quart of sterile water. Following the cleansing of the uterus, fluid extract of ergot should be given in teaspoonful doses until a tonic contraction of uterus takes place. Ergot has the power of contracting the uterus and thereby closing the uterine sinuses and stopping a further absorption if there be a metritis present, as is usually the case.

Second—Thoroughly cleanse the alimentary canal by giving calomel in one grain doses until free catharsis is established, for the nutrition cannot be kept up if there is a loaded intestinal tract. I am of the opinion that the curette is seldom of any use, and it may do much harm in unskilled hands, nor would I think for a moment of cauterizing with the chloride of zinc or any escharotic. Both the curette and caustics are liable to open up new avenues of absorption or close surfaces that are now being drained. When the bowels have been evacuated, small doses of opium may be given to relieve pain if it cannot be relieved by ice applied to the abdomen, or, better still, the cold coil.

Third—A liquid diet, but nourishing, as egg-nog, beef-tea, broths, milk, ices to relieve thirst; iron, quinin, alcohol in some form find their uses. From our present knowledge it is in my judgment the part of wisdom to administer ten c.c. of antistreptococcic serum every four or six hours until the temperature is lowered. If cultures show that the disease is due to the diphtheria bacillus, who would think he had done his duty if he had not given antidiphtheritic serum? Upon the same principle I would strongly advise antistreptococcus serum.

The serum treatment is destined to be the treatment of this dreaded malady if we reason from analogy. Where the serum is used early, many of the complications—as cellulitis, adenitis, and other secondary infections, will be less frequently found. As a tonic, if iron is not well borne, and it often is not, I give the extract of red bone marrow, believing in it upon the theory that it increases the phagocytic power of the white blood corpuscles.

Discussion.

DR. REINEKING:—My remarks will be rather a continuation of Dr. Dodd's paper than in the way of comment or criticism on the paper or the previous discussion.

There is a class of cases of puerperal sepsis that we have to deal with after the first periods have passed, and sometimes quite early, in which the infection has become pretty well localized in one or both tubes, or has taken the form of a septic pelvic thrombophlebitis. In such cases the chills may persist, followed by intermittent high temperature. Here the treatment will resolve itself essentially into local surgical treatment. I will briefly cite two cases which illustrate just what I want to say.

A middle-aged woman developed puerperal sepsis, due probably to gonorrheal infection. When I saw her it was about ten or twelve days after the confinement; the chills were terrific, the temperature running as high as 107°. The attending physician had done everything, so far as disinfection of the uterus and vaginal canal was concerned. There had been no laceration. There was in the region of the left tube, distinct fulness, tenderness and induration. An operation was done about the 11th or 12th day, and the left tube was found to contain pus. The left tube together with a good portion of the broad ligament, with its veins, was removed. The chills at once ceased and the woman made a prompt recovery, which under the circumstances mentioned, with a temperature as high as 107°, would have been improbable without this surgical treatment. About a year and a half later, she had an abortion. This was followed by a similar fever with grave chills and high intermittent temperature. The same local conditions prevailed on the right side. The same radical treatment was resorted to, and after passing through a pyemic metastatic infection of the right knee, she again made a good recovery. There are two instances in the same person where prompt surgical interference no doubt was the means of saving life.

The other case was one in which first sapremia and then local septic thrombophlebitis followed retention of the placental tissue after premature labor, and symptoms of pyemia supervened. I was called a number of weeks after the discharge of the fetus, and the same conditions I have described were present. The woman had terrific chills, followed by a high temperature, then intermitting and coming on once or twice a day. The uterus had been thoroughly treated, and there was no evidence of any infection other than in the region of the right broad ligament; here a tender induration could be felt. There was no doubt in my mind that here again we had either a purulent infection of the tube, or a septic thrombophlebitis in the right broad ligament. In this case operation was not consented to, the condition progressed for several weeks, when the woman died.

CURRENT LITERATURE.

OPHTHALMO-REACTION IN TUBERCULOSIS.

Ophthalmo-Reaction in Tuberculosis. FRANKE (*Deut. Med. Wochenschr.* No. 48, 1907), states that Calmette found that tuberculous persons showed marked reactions upon instillation of a watery solution of tuberculin into the conjunctival sac. His observations were confirmed by Citron who used a simple 1 per cent. solution of tuberculin.

Franke reports his own tests on 24 patients—of whom 6 with marked tuberculous, respectively scrofulous, eye affections, one with recent chorioiditis, one with serous iritis, a child with parenchymatous keratitis and another case after an old injury—reacted positively to the instillations. 14 reacted negatively.

The effect of the instillations failed in no case in which a positive reaction was surely expected, and in some doubtful cases they gave an important diagnostic clue. The solution was dropped on the palpebral conjunctiva of one eye only, and the reaction followed after 3, 12 or 15 hours.

Citron distinguishes three stages of reaction: (1) redness of the palpebral conjunctiva and caruncle; (2) the same, with redness of the ocular conjunctiva; (3) higher degrees with conjunctivitis and swelling of the lids. General disturbances or fever were never observed. Solutions of better durability than those used at present are desirable. The method may be of great diagnostic value, is easily applicable and without danger. C. Z.

Ophthalmo-Reaction to Tuberculin. COHN (*Berlin. Klin. Wochenschr.* No. 47, 1907), reports his experiences with the ophthalmo-reaction on 310 patients. A 1 per cent. solution of old tuberculin (Höchst) without carbolic acid, was instilled into the conjunctival sac. The reaction generally followed after five to six hours, or after about 20 hours, and lasted from 2 to 14 days. Cohn sums up: 1. Positive reaction speaks with very great probability for tuberculosis. 2. Negative reaction does not absolutely speak against tuberculosis, since 50 per cent. of the patients affected with severe phthisis did not react. 3. Typhoid patients very frequently showed positive ophthalmo-reaction, especially during convalescence. 4. A subcutaneous injection of tuberculin, made some time after the instillation, is apt to reproduce the local reaction in the eye or to induce it, if it did not occur before. 5. A single instillation creates hyperesthesia of the eye in adults, free from tuberculosis, not in children, after a sufficiently long period. In tuberculous persons it generally affects also the other eye. C. Z.

The Ophthalmo-Reaction. KOEHLER (*Deut. Med. Wochenschr.* No. 50, 1907), tested the ophthalmo-reaction of 175 patients with diseased lungs, of whom 169 were clinically doubtless cases of tuberculosis, 5 not certain, 1 not tuberculous. Of the 169 tuberculous cases (50 showed tubercle bacilli in the sputum), 83 (51 per cent.) reacted to a 1 per cent. solution of old tuberculin, 66 (41 per cent.) to a 2 per cent. solution, after the 1 per cent. had failed, 13 (8 per cent.) to a 4 per cent. solution after the 1 and 2 per cent. solutions had failed, 8 (4.7 per cent.) of the unquestionably tuberculous cases did not react at all. Two of the 5 doubtful cases reacted to 1 per cent. tuberculin solution, 3 to 2 per cent. The clinically non-tuberculous case reacted to 4 per cent.

Hence K. infers that in pulmonary tuberculosis the ophthalmo-reaction is rarely negative, but it is not certain whether it may be considered as a safe, especially early, diagnostic test. After it has been ascertained that about 95 per cent. of them gave a positive reaction, its percentage must be studied on a large material of non-tuberculous individuals. C. Z.

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EDITORIAL COMMENT.

THE SIXTY-SECOND ANNUAL MEETING.

The meeting of the State Medical Society, annually looked forward to as the event that brings together the physicians of the state in a common cause and with a united interest, is soon to take place. Milwaukee is the place of meeting. There are many features that ought to help make this meeting not only a well attended one, but an unusually interesting one. The railroad facilities to Milwaukee are good from all parts of the state. No effort is being spared to have a large, well selected and instructive pathological exhibit, and most excellent men are in control of this section. The program committee, whose preliminary announcement is printed elsewhere in this issue, presents an attractive and promising list of contributors of papers; and surely the names of Drs. Walter B. Cannon of Boston,

and Rudolph Matas of New Orleans, augur well for the excellence of the principal addresses. The entertainment committee has not yet made its announcement, but the physicians may rest assured that every hospitality will be shown the out-of-town members, and that every provision for their entertainment will be offered. Clinics and clinical demonstrations will also be in evidence before and after the meeting.

So, physicians of Wisconsin, note the date—June 24, 25, 26, and the place—Milwaukee. Scan the program which will be printed in the May JOURNAL. Make your preparations now to take a few days off. You will find work galore, and entertainment in plenty. The committees are doing their utmost to live up to their promise to outdo the successes of previous gatherings. This being the case, a splendid meeting is assured for 1908.

THEY'RE AFTER THEM.

It is natural that the newspapers that formerly derived fat revenues from obscene and near-obscene advertising, should resent any interference with their business. But inasmuch as there now is a law that has put this sort of publicity under the ban—a law that stands triumphant as the goal for which the honest and decent physician had long been bending his efforts—this law must be respected.

Many lay publications, however, have disregarded the new state of things, and this has progressed to such an extent that the members of the State Board of Medical Examiners have seen fit to enter a protest indicating their intention to prosecute all violations of the spirit if not letter of the law.

The following resolutions were recently passed unanimously:

"Whereas, there appears a tendency on the part of some individuals and newspapers to publish advertisements that in letter and spirit violate the provisions of chapter 156, laws of 1907, the law prohibiting obscene advertising, therefore be it

"Resolved: That this board will, by all means within its power, secure the prosecution of every case of obscene advertising brought to its notice, and to the end that proper and reliable information of such violations may be brought to our notice all county medical societies, physicians and other persons, having cognizance of any obscene medical advertising, are requested at once to submit such advertisements to our attorney, and the attorney of this board is instructed to see to it that in every case so submitted which, in his judgment, is a violation of chapter 156, laws of 1907, a prosecution in the proper county is instituted and the guilty party or parties be brought to justice."

ANTIVIVISECTION ACTIVE AGAIN.

Scientific experimenters have long been working toward definite ends in their various branches of research. No sooner are theories formed but there must and necessarily do follow elaborate and painstaking series of experiments to prove their truth or falsity. When and if the truth of these theories is demonstrated—then their practical application is considered.

But, unfortunately, a staying hand has been raised, and an effort is being made to restrict animal experimentation—without which there can be no demonstrable and reliable results—and to hedge it in with such a series of conditions as to seriously impair its future usefulness. The antivivisection laws of England, of which the proposed legislation of New York State is an echo, have forced scientific investigators to leave that country in order to be free to carry on their work.

The publicity given this controversy by *Collier's* Magazine is an appeal to reason that ought to convince. This progressive and pro-medical publication tells briefly of the work that has thus far been accomplished, and demonstrates (we hope) lucidly to the lay mind the many ways in which the world has profited by experiments on animals. Of course, there are some females of forty or thereabouts, whose fondness for fat and furry felines—and some married ladies whom kind Nature has denied the blessing of parenthood and replaced this instinct with a nature that consoles itself with the love and lick of lazy lap dogs—there are, we say, these individuals whom nothing can convince. Experimenters are to them bold and bad, inhuman and unhuman, and their lust for the sight of gore, their yearning for the groans of captive animals, is their food and drink. *Collier's* quotes the words of a witty English essayist who describes the sport of angling as "running an iron hook in the intestines of an animal, presenting this first animal to another as his food, and then pulling this second creature up and suspending him by the barb in his stomach." The antivivisectionists have not yet placed the ban of their disapproval upon the patient Nimrod. Did we but have a personal acquaintance with antivivisectionists, we would in all likelihood discover other equally funny inconsistencies.

The outcome of the controversy in New York will doubtless determine action elsewhere. We trust that enough sane men will be found who can be convinced that restriction of animal experimentation will be a hindrance to progress. No unbiased observer will deny that "the present much exaggerated amount of suffering of animals under animal experimentation is the price of a progressive medicine and surgery, decreasing the death rate, eliminating plagues and scourges, making health and longevity increasingly attainable."

THE RIGHTEOUSNESS OF DOCTORS' FEES.

The writer of an article recently published in *Appleton's Magazine* under the above title, has, for a layman, a pretty clear insight into the financial difficulties that beset the path of the medicus from his early years of study into and through his years of success, and in his period of retirement. Physicians know how little commensurate with the value of their labors is the compensation accorded them. They know, too, from experience, that but few patients are willing to aid them in their personal charities—that is—few indeed are willing to be billed proportionate to their means for medical services on the ground that much of the physician's time and labor is given over to charity. The writer above quoted very properly considers the many years devoted to study before the physician becomes productive, and the several years that must elapse before he may consider himself on an expense paying basis.

Alas! The layman who is responsible for this article is an idealist. He travels a lonely road. We shall not live to see the time when people will willingly concede that our services are to be rated according to the patient's estimate of the value of his restored health; we shall not be here to witness public recognition of the physician's altruism in surrounding those from whom he expects food and drink with safeguards lest they fall prey to disease and require his services. (They say the Chinese pay their physicians to keep them well: not so wide of the mark—that.)

A New York physician is quoted as saying that there are not 100 doctors in his city who could retire and not starve to death within a year. And it doubtless is true that "expenses increase with our income, and while the average business man can hope to retire some day, the average medical man retires when he dies." And that he dies at a comparatively young age, is also conceded.

There is really no comment to be made upon the article taken as a text for this editorial. The physician will not profit in perusing it—he knows the truth therein contained. It is for the layman; may he read and profit thereby.

INSANITARY ICEBOXES.

A correspondent to a Milwaukee daily recently called attention to a most flagrant violation of all principles of good sanitation. He says: "There are many restaurants and saloons in this city that run the waste pipes of their iceboxes into filthy sewers, sometimes directly into an open sewer, leaving free access of foul air, gases and vermin

to enter the icebox and infect the food people eat, thus spreading disease."

This is certainly a subject that calls for attention. In private dwellings where small iceboxes are in use and the waste is otherwise provided for, the danger from this source is not great; but its existence in public eating places—if the above report is true—constitutes a serious menace, and health officers in large and small communities would do well to make a thorough investigation of the facts. The correction suggested is that the iceboxes be connected up with back water traps and ventilators, as are other waste water fixtures.

A NATIONAL DEPARTMENT OF PUBLIC HEALTH.

It is interesting to note that in the recent Ohio State Republican Convention one hundred and five physicians sat as delegates; and of equal interest is the fact that that convention, which was said to have been dominated by one of the leading candidates for the presidency, Mr. Taft, adopted as one of the planks in its platform a specific declaration in favor of a comprehensive National Department of Public Health.

The declaration of principles of that convention—so far as they relate to national issues—are said to be those upon which Mr. Taft will stand as a candidate for the presidency, and therefore he takes a position in favor of the idea which the vast majority of the medical profession of the United States has urged for many years, namely, that the highest function of government is the preservation of the life and health of the people, and that the establishment of a National Department of Public Health is of the greatest importance.

This is the first instance in which any candidate for the presidency has announced himself in favor of this progressive, humane and necessary step. The National Legislative Council of the American Medical Association is to be congratulated upon this indication of the progress of their work, and the medical profession and each individual physician should see to it that every candidate for a national office whose influence and whose vote would make for the success of the movement to establish a National Department of Public Health, is made familiar with the necessities for such legislation.

MILWAUKEE TO HAVE PURE MILK.

A notable victory was recently won in Milwaukee, placing this city in the front rank of those whose milk supply is to come from almost absolutely untainted sources. After the most persistent efforts,

and with characteristic tenacity, Health Commissioner Dr. G. A. Bading has at last passed his ordinance demanding that only the milk from tuberculin tested cattle be permitted distribution in this city. It is further stipulated that milk must be kept at or below a certain temperature while in transit. Dairymen are given one year to comply with the law.

It is hardly necessary to comment upon the value of such a measure to the public. Its effect will be evident during the first summer of its operation. Milwaukee has for several years enjoyed the product of a number of dairies that have voluntarily anticipated this action; and although we cannot expect all to equal the standard set by these, the new laws governing all producers will give Milwaukee a milk supply second to none in the entire country.

We congratulate Dr. Bading upon the successful passage of this ordinance.

A PREACHMENT.

Harrington Sainsbury, in *Principia Therapeutica*, expresses his thought so beautifully that we feel it well worth reproduction here.

"The problem of life with which we have to cope requires for its understanding a full and fuller recognition of the laws of physics and of chemistry; these, however, will carry us but a part of the way of understanding. Who has not seen the life of the body, in all its departments, languish for lack of an ideal, for want of an object upon which to fix the mind or heart? To meet this state of things it will not profit to order a change of diet, a regulated scheme of repose and exercise, a modification of the clothing. Then, too, will hygiene fail us, as also will medicine, though we turn to the Materia Medica and invoke its aid. In despair we shall perhaps counsel travel; in vain—we may change the sky, we shall not change the spirit. The rules of bodily health, the virtues of herbs, the stimulus of altered surroundings, will alike prove ineffectual; the thing which is lacking is an interest, not a rule of health; a desire, not a drug; a purpose, not a distraction; and it is in default of these that the faculties lie dormant and the tide of life runs low. Here is latent a poet, an artist, a man of science, a philanthropist, and till he come in this or that guise, and with him the more abundant life of the spirit, the more abundant life of the body will tarry also, for inseparably intermingled are the grosser and the subtler essences. The touch which shall give life, when it does come, will come not by way of the laws of matter and of motion, but by way of the laws of the spirit, so true is it that 'man shall not live by bread alone.'"

THE PEOPLE'S DISEASE.

The article entitled "Dental Caries as a Factor in the Etiology of other Diseases," by Dr. Lawrence N. Baker of Boston (*Boston Medical and Surgical Journal,* March 26), very opportunely calls attention to the marked effect neglect of the oral cavity has on general systemic conditions.

At the present time, when such energetic efforts are being made by the medical profession and those interested in sociological conditions, in the line of public hygiene, not sufficient thought and consideration, it seems, are being given the disease which because of its great prevalence has laterly been called "The People's Disease." That a mouth filled with teeth broken down by the ravages of dental caries —thereby forming veritable culture media and tubes for the propagation of all kinds of pyogenic and pathogenic germs—can hardly be in a sanitary condition, is obvious. That such a condition or one where the discharge of pus from an alveolar abscess or from purulent pyorrhoea pockets is taken up by the saliva and thus finds its way into the stomach, can easily produce a gastric catarrh and consequent anemia, seems reasonably good logic.

Most of the organisms entering the stomach from the mouth are destroyed by the gastric juice; but not by any means are all of them thus acted upon.

Observers have noted the very marked improvement in the general health of school children following the proper care given the oral cavity. In 1902, as the result of the efforts of Prof. Jessen, a dental clinic was established in the City of Strassburg, and this is now maintained by the state. At the present time children of from three to six years of age attending school there, are obliged to undergo dental treatment if needed. The result of this early attention has led to a striking decrease in the number of absences from school through toothache, to a general raising of the standard of work, and to an improvement in general health. To-day 33 of the chief cities of Germany and 15 cities of other countries have adopted measures to improve the situation. In this country but a beginning has been made in the matter of the examination of the mouths of school children.

Within the past few months permission has been granted by the School Board of the City of Milwaukee to the Milwaukee Odontological Society to make an examination of the mouths of the children in two of its schools and make reports and recommendations.

In hospital as well as in private practice, little—far too little attention is given to the condition of the teeth. We forget that poor

J. A. C. C.

William H. Earles, M. D., died suddenly of apoplexy, at his home in Milwaukee, on April 28, 1908.

Deceased was born in Genesee, Wis., in 1852. He pursued studies at the Oshkosh Normal School, State University, and Rush Medical College, from which latter institution he graduated in 1880. He founded Milwaukee Medical College, Trinity Hospital and Trinity Hospital Training School, and recently effected affiliation of the Medical School with Marquette University. He was appointed Dean of the Medical Faculty.

(The Journal being in press at this writing, further obituary notice will be deferred until next month's issue.)

teeth and insufficient mastication are inconsistent with good digestion. What seems to be needed is the cordial co-operation of the general medical profession in the efforts for reform now being made by the dental practitioners.

NEWS ITEMS AND PERSONALS.

Dr. David La Count, aged 79, one of the State Board of Pension Examiners, died at Wausau, Wis., April 15, 1908.

Returned from Abroad. Drs. Louis F. Frank and Albert G. Jenner have returned from abroad.

Dr. J. B. Devlin, formerly of Kenosha, died on March 15 at Denver, Colo., aged 48 years.

Hospital Fire Proves Fatal. The Northwestern Hospital at Chippewa Falls was destroyed by fire on April 11. According to press dispatches, about thirty patients had to be removed from the hospital, and it is said that one, who was under the influence of ether, later died as a result of exposure.

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TERM EXPIRES 1911.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

TERM EXPIRES 1912.

3rd Dist., F. T. Nye, - - - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1913.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., C. J. Combs, - - Oshkosh

TERM EXPIRES 1908.

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - - Marinette

TERM EXPIRES 1909.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

TERM EXPIRES 1910.

11th Dist., J. M. Dodd, - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

PROGRAM OF SIXTY-SECOND ANNUAL MEETING.

The State Medical Society will hold its annual meeting in Milwaukee on June 24, 25 and 26, 1908. Among the features announced for this meeting will be an Address in Medicine by Dr. Walter B. Cannon of Boston. Dr. Rudolph Matas of New Orleans has been invited to read the Annual Address in Surgery, and the two days (Monday and Tuesday) preceding the sessions and the Saturday following will be devoted to clinics to be held at the two medical colleges and the various Milwaukee hospitals. A most comprehensive pathological exhibit is being collected by the Committee, Drs. J. L. Yates, F. Gregory Connell and V. H. Bassett, and will consist of a well classified selection of specimens which will be demonstrated during the meeting.

Among the contributors of papers are the following:

DR. C. R. BARDEEN, Madison.	DR. H. A. JEGI, Galesville.
DR. WILHELM BECKER, Milwaukee.	DR FRED JOHNSON, No. Freedom.
DR. F. G. CONNELL, Oshkosh.	DR. W. G. KEMPER, Manitowoc.
DR. M. V. DEWIRE, Sharon.	DR. W. S. LINCOLN, Dodgeville.
DR JOS. ERLANGER, Madison.	DR. C. E. OVIATT, Oshkosh.
DR. G. A. FELLMAN, Milwaukee.	DR. A. J. PATEK, Milwaukee.
DR. LOUIS FALGE, Manitowoc.	DR. R. P. PEAIRS, Milwaukee.
DR. C. J. HABHEGGER, Watertown.	DR. M. P. RAVENEL, Madison.
DR. N. L. HOWISON, Menomonee.	DR. F. C. STUDLEY, Milwaukee.

KENOSHA COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Kenosha County Medical Society was called to order by President Stalker at the Pennoyer Sanatarium at 8:30 P. M., April 3, 1908. There were twenty-three members and two visiting physicians present.

On motion it was decided to appoint a committee to arrange for a public meeting in May in order to arouse, if possible, some interest in the anti-tuberculosis crusade. Drs. Windesheim, Gephart, and Jorgensen were appointed as a committee.

The urgent necessity for more hospital room in Kenosha was discussed by the members, and it was decided on motion to send a committee of the medical society to wait on the board of directors of the hospital and call their attention to the fact that patients were turned away every few days for want of room. The chair appointed Drs. Windesheim, Ripley, and Gephart.

The meeting was then turned over to Dr. George F. Adams who led in a discussion of *The Business Side of the Practice of Medicine.* After outlining his subject the leader called upon the various members to give a frank statement of how each one kept his accounts, and his means of collecting, as by bills, collector, garnishments, lawsuits, etc. There was also a discussion of the matter of fees and methods of educating people to pay their doctor's bills promptly. The discussion proved so interesting and profitable that after our hosts had served us with luncheon the session was resumed and the meeting was not adjourned until just before midnight.

P. P. M. JORGENSEN, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the La Crosse County Medical Society was held at the New La Crosse Club on Thursday evening, April 2, with Dr. T. H. Miller in the chair.

Dr. E. Evans introduced the following resolution, which after discussion, was adopted:

Resolved, That the La Crosse County Medical Society heartily approves of the recent action of the milk vendors and producers of La Crosse in pledging themselves to work for a pure milk supply. We hope that an ordinance will be passed and enforced by the city that will effectually safeguard the health of its citizens, especially the children, while not made so burdensome

as to lead to evasion of its provisions; an ordinance educative rather than punitive. This Society has long been interested in the passage of such an ordinance, and went on record February 1, 1906, as endorsing heartily some provision for inspection of milk and dairies in the city of La Crosse.

The papers of the evening were next presented. Dr. J. L. Callahan read a carefully prepared paper on *Gastric Ulcer*, and was followed by Dr. H. E. Wolf, whose subject was *Methods of Gastric Examination*. After describing the methods of physical examination of the stomach, Dr. Wolf demonstrated very fully the methods of chemical examination of gastric contents with several specimens of gastric juice illustrating different conditions. The discussion was led by Dr. T. H. Miller.

The next meeting will be held on May 7; Dr. C. Christensen will read a paper on *Diet*, and Dr. C. H. Marquardt one entitled *Some Hygienic Points*.

EDWARD N. REED, M. D., *Secretary*.

MARATHON COUNTY MEDICAL SOCIETY.

The Marathon County Medical Society held its April meeting at Wausau, sixteen members being present. Dr. Sauerhering presented some recent X-ray photographs comminuted fracture at the elbow joint. Dr. Rosenberry demonstrated Stanton's Blood Pressure apparatus.

After the meeting the members repaired to the Hotel Bellis where a supper and general good time was enjoyed.

F. C. NICHOLS, M. D., *Secretary*.

PIERCE COUNTY MEDICAL SOCIETY.

The Pierce County Medical Society held its regular quarterly meeting on the evening of March 24, at Hotel Parker, River Falls, Wis. Dr. T. W. Ashley read a paper on *A Point of View*. There was an informal discussion of Dr. Ashley's paper and of the automobile fever.

Next regular meeting will be held at Ellsworth, June 16th.

R. U. CAIRNS, M. D., *Secretary*.

WASHINGTON COUNTY MEDICAL SOCIETY.

The first regular meeting of the Washington County Medical Society for 1908 was held in the City Hall at West Bend, March 26.

The meeting was called to order by the president, Dr. C. Bossard. The following members were present: Drs. D. W. Lynch, W. J. Wehle, G. A. Heidner, W. Lynch, N. Ed. Hausmann, H. H. Albers, F. P. Leich, C. Bossard and E. J. Butzke. Visitors: Wm. Wikart. It was voted that Dr. Wikart be allowed to join in the discussions.

This is the first year that the Society has an annual program to be followed. This plan gives each member sufficient time to prepare his paper, and the other members a chance to prepare for discussion. The following papers were read: *Abortion and Premature Labor*, Dr. Webster Lynch, West Bend; *Placenta Previa*, Dr. G. A. Heidner, West Bend.

Dr. W. J. Wehle, West Bend, presented a complete history of a case of *Inversion of the Uterus after Labor.*

The papers presented were thoroughly prepared. The enthusiastic discussion which followed each paper proved to the Society that their plan of having a yearly program will meet with success. It certainly proved to those that read papers that their efforts were appreciated by the members present.

Dr. O. E. Werner, formerly of West Bend, was expelled for immoral and unprofessional conduct by an unanimous vote of the Society. Dr. R. G. Werner was present in his defense.

The applications for membership of Dr. Wm. Wikart of West Bend and Dr. J. G. Hoffmann of Hartford, have been presented to the censors. The next meeting will be held at Schlesingerville, June 25, at 2 P. M. Every physician in the county is requested to make a special effort to attend this meeting.

E. J. BUTZKE, M. D., *Secretary.*

BOOK REVIEWS.

Textbook of Minor Surgery. By EDWARD MILTON FOOTE, A. M., M. D., 752 pages, with 407 Illustrations. D. Appleton & Co., New York, 1908.

In the preface of this book the author dwells upon the fact that the importance of minor surgery is not recognized in the curriculum of most medical schools, and his statement that through this neglect there is more bad minor surgery performed, and especially upon the hand than upon the organs of the abdomen, is also probably correct. The book is divided into sections dealing with the head, neck, trunk, genital organs, anus and rectum and extremities. These sections are subdivided into chapters dealing with injuries, inflammations, tumors, and deformities of the respective parts. In the first section such subjects as nasal hemorrhage, removal of powder grains, foreign bodies of the eye, ear and respiratory passages, peritonsillar abscess, etc., are thoroughly covered.

Probably one of the best sections in the book is that on acute inflammations of the hand. This includes tendon suture, wounds of joints, foreign bodies, infections, cellulitis, paronychia, thecitis, suppurating synovitis, palmar abscess and disease of tendon sheaths.

The anatomical considerations in this chapter are especially valuable and practical. In the discussion of paronychia numerous photographs and several diagrammatic drawings are included which render the description very clear. It is surprising that no mention is made of Bier's method of treatment with hyperemia and suction.

In the consideration of tumors of the breast the early signs of carcinoma are discussed because these cases are often met with in dispensary and office practice. The essential points are well emphasized, but most surgeons would probably take exception to the author's advice to excise a small portion of the tumor in doubtful cases for microscopical examination. It is considered better practice in these doubtful cases to rely on the gross appearance of the tumor on section at the time of the operation. When cancer is diagnosed such section should be followed by immediate radical operation.

In the treatment of hydrocele no mention is made of the eversion method, nor is the clamp and cautery method referred to in the treatment of hemorrhoids. The remaining portion of the book is devoted to operative technique, bandaging, and surgical dressings. In the chapter on operative technique there are many valuable hints on such general subjects as asepsis, equipment of operating room, preparation of patient and hands of operator, instruments, local anesthesia and wound treatment. The chapter on bandaging is excellent and profusely illustrated.

The author's large dispensary service and his experience as teacher of minor and general surgery render him well fitted to write upon the subject of Minor Surgery. There are few theoretical considerations, but diagnosis and treatment are given especial prominence and the lines of treatment are very clear and comprehensive. The entire work is very practical and well written and deserves hearty commendation. F. J. G.

A Practical Guide to the Examination of the Ear. SELDEN SPENCER, A. B., M. D., Instructor in Otology of the Washington University. C. V. Mosby, Medical Book and Publishing Company, St. Louis. Price $1.00.

The work is a brief, concise and practical little volume for the use of beginners in the study of Otology. Its style is lucid and clear, and it satisfactorily meets the purpose for which it was intended. It is amply illustrated by numerous cuts and sketches, and its chapter on surgical anatomy should prove especially valuable to the tyro. We can confidently commend its perusal by both beginner and practitioner. H. B. H.

Lectures on Physical Chemistry for Physicians. ERNST COHEN, Utrecht. Second, enlarged edition, 264 pages with 53 figures. Wilhelm Engelmann, Leipzig, 1907. Cloth (9M.) $2.25.

The description in modern medical literature of a large number of researches, which are based on physico-chemical conceptions, demand for their understanding from the physician a knowledge of the theories and methods of physical chemistry. These lectures are intended to propound the intimate connection of this young branch of chemistry with biological science and to discuss in detail its most important methods, under the following headings: Velocity of reaction, obtaining constant temperatures, inversion of sugar and catalysis, fermentative actions, equilibrium, solubility, interior friction and tension of surface, osmotic pressure, diffusion, determination of the molecular weights of dissolved substances, electrolytic dissociation, the doctrine of disinfection in the light of electrolytic dissociation, toxic actions, osmotic analysis, electromotor actions, etc.

The exposition is very clear, and the book will be welcome to many physicians who will read it with great interest and profit. Paper, print and illustrations are very good. C. Z.

Letters of Theodor Billroth. GEORG FISCHER, Hannover. Briefe von Theodor Billroth. Seventh, enlarged edition. 622 pages. Hannover und Leipzig. Hahn'sche Buchhandlung. 1906. Cloth (15M.) $3.75.

Within eleven years the letters of Billroth appeared in seven editions, a striking illustration of how eagerly they were coveted by physicians at large and educated laymen. Billroth, one of the greatest surgeons and pathfinders of his time, had the desire to express in letters the rich world of his thoughts, even to friends living in the same city with him. Thus nothing can better, than do his letters, delineate a picture of this superior man, his noble character, his many-sided talent, his striving and contests for the truth in life, science and art. Writing came easy to him, imparting to his letters the charm of spontaneity clad in the most fascinating style.

The new edition, increased by a number of letters, recommends itself as a most precious gift of delightful reading. The external appearance, paper, print and binding are excellent. C. Z.

Handbook of Human Physiology. PROF. W. NAGEL, Berlin, in conjunction with many collaborators. Volume I, first half, and first part of second half. 608 pages, with 41 illustrations. Braunschweig. Friedrich Vieweg & Sohn, 1906. (17M.) $4.25.

The high merits of Nagel's handbook, emphasized in our reviews of volumes III and II (WISCONSIN MEDICAL JOURNAL, 1907, p. 181, and 1908, p. 502) are further admirably displayed in the present volume I, which contains the physiology of respiration, circulation and metabolism. The first chapter, on the respiratory movements and their innervation, by H. Boruttau, is introduced by a comparative synopsis of the object of these movements, and the physical and anatomic bases of pulmonary respiration, followed by paragraphs on the respiratory muscles, changes of the shape of the body by the respiratory movements, types of respiration, spirometry, pneumatometry, and the air passages. Under innervation of the respiratory movements the motor nerves of the respiratory muscles, the center of respiration, the reflexes and regulation of the respiratory movements, apnoea, dyspnoea, and asphyxia are discussed.

In the second chapter, on gases of the blood and respiratory interchanges of gases, by C. Bohr, a general exposition of the physics of absorption of gases by liquids leads up to their special relations to the blood, lymph, normal and pathologic secretions, considering in detail O,CO_2,CO,N and Argon. Then the interchange of gases is described, the gas secretions in the lungs and the swimming bladder of the fish and their dependence on the nervous system, the interchange of gases between blood and the tissues, influence of altered composition of the inspired air on the process of respiration, respiration of skin and intestines, fetal respiration, with an appendix on obtaining the gases by evacuation of the blood.

F. B. Hofmann's article on general physiology of the heart and innervation of the heart and blood vessels commences with a very interesting chapter on the automatism of the heart and its parts, in which the author favors the theory of Gaskell and Engelmann of the myogenous origin of the heart's

action. Then the irritability, contractibility and its rhythmical fluctuations, the conduction of excitation, the various actions of the nerves of retardation and acceleration, and the centers of the regulatory nerves of the heart and their excitation are dealt with, followed by the very important chapter on innervation of the blood vessels.

226 pages are devoted to an elaborate discourse on the physiology of metabolism by R. Tigerstedt. In his introduction he describes the methods of experiments on metabolism, gives a general view of the ingestion and excretions of the body and how to obtain them, with final calculations. Then the metabolism during inanition, after introduction of albumen, fat and carbohydrates and various other substances are discussed. Here we find a very interesting chapter on alcohol which is mentioned as an example of a substance that may have two properties, nutritive and poisonous, with predominance of the latter in this case. The metabolism during physical labor, under varying outside temperature, in individuals of different sizes and ages, the apposition of albumen, carbohydrates, fat in the body, the mineral nutritive substances, as water, N.Cl,P.,Ca,Mg,Fe are the next topics, closing with a practical chapter on the nutrition of man.

The last essay on animal heat is also by Tigerstedt, and is subdivided into temperature of the human body, topography of formation of heat, loss of heat and protection against it, regulation of the temperature of the body and its centers, regulation of temperature of the new-born and on the economy of heat of poikilothermic vertebrates.

This partial enumeration of subjects may suffice to give an idea of the wealth of material collected in this volume. Due consideration of historical development, general points of view, references to the correlation of phenomena pervade the discourses, which by their interesting arrangement and style invite continuous reading. They deserve nothing but the highest praise.—C. Z.

Pathologic Physiology. By LUDOLF KREHL, Director of the Internal Clinic in the University of Heidelberg. A Textbook for Students and Physicians. Fifth, revised, edition. Leipzig. F. C. W. Vogel, 1907. M.15 ($3.75.)

The great merits of this unusually good work were set forth in our review of the fourth edition in the JOURNAL, 1906, to which we beg to refer. It is not to be wondered at that, after a year, another edition became necessary, displaying the incessant ambition of the author to keep the book abreast of the most recent progress of our knowledge. Thus it will be sure to win a still larger circle of friends. (C. Zimmermann.)

THE WISCONSIN
MEDICAL JOURNAL

MAY, 1908.

ORIGINAL ARTICLES.

EFFECTS OF UPPER RESPIRATORY OBSTRUCTION.*

BY E. M. TURNER, M. D.

LA CROSSE, WIS.

I wish to consider in this paper the facial deformities and other pathological changes resulting from obstruction, in the nose or pharynx, to free respiration. The fundamental changes are the same whether the obstruction is nasal or pharyngeal.

I wish first to refer to the changes in air pressure which occur during respiration. In normal breathing, with mouth closed and free passage of air through the entire respiratory tract, we find in the nose and pharynx a negative pressure on inspiration of about one mm. of mercury, and on expiration a positive pressure of about two to three mm. of mercury. Exact readings are very difficult to take. The person under observation is very apt to breathe artificially and not naturally while under observation.

Measurements taken by myself showed a distinct excess of positive pressure, and different observers unite in placing the excess at 1 to 2 mm. of mercury. At each respiration the tissues of the pharynx, nose and of the accessory sinuses are given a pneumatic massage. Veins, capillaries and lymph channels are alternately filled and compressed with a perfect rhythm day and night. The walls of the nasal cavity, the maxillary antra and frontal sinuses are subject to a positive pressure tending to force their walls outward and enlarge their cavities.

*Read before the La Crosse County Medical Society, March 5, 1908.

An obstruction in the nose or throat subjects these tissues to entirely different conditions—conditions which hinder their development rather than favor it. If you watch the breathing of a person asleep who has obstruction sufficient to cause mouth breathing, you will observe that inspiration is labored and prolonged, while expiration is shorter and freer. On inspiration the alae of the nose slightly collapse and lessen the caliber of the nostril. On expiration the alae dilate.

The mouth is not opened wide, but teeth and lips are only slightly separated. With inspiration the lips are drawn partly closed, and are more freely opened again on expiration. This labored inspiration is not so apparent when the person is awake, yet the manometer shows even then a very marked excess of negative pressure. This excess may be eight or ten mm. of mercury and still the respiration not appear labored. The mouth breather can get free respiration by opening his mouth widely, but this causes fatigue and discomfort, so he does not do so. The mouth must be opened quite freely before the manometer ceases to show excessive changes in pressure. If a nostril is entirely closed to currents of respired air, its tissues and those of the accessory sinuses are robbed of that massage as a stimulant to circulation, and also of that positive pressure tending to give the growing sinuses their full development. If, however, we have only a partial obstruction, we have a decided negative pressure or cupping action, tending still further to limit circulation and enlargement of the sinuses.

At Johns Hopkins University, several years ago, the experiment was made on young guinea pigs of closing one nostril by stuffing it with cotton wool. As a result one-half of the entire skull remained small and undeveloped.

One of the first changes noticed in mouth breathing in children is a high arching of the palate. The positive pressure on the upper surface of the palate which it would receive in nasal respiration, has been removed, and instead, at each inspiration and each expiration the column of air strikes directly against the lower surface of the palate tending to force it upwards into the nasal cavity.

Six months of mouth breathing may in a child produce a very noticeable arching of the palate, and in one year's time may produce a decided deformity of the palate and other bones of the face. After the second dentition these changes are less marked, though they may occur to an appreciable extent in the adult.

The "adenoid face" is the name often given to this facial deformity, because it was early observed that these changes were asso-

ciated with adenoids. The typical picture is the mouth breathing, a hollow appearance of the face, due to undeveloped maxillary antra, prominent and irregular upper front incisors and often a dull stupid expression.

The undeveloped maxillary antra and frontal sinuses cause a slight deformity of the orbits, and while as a facial deformity it may be insignificant, it may result in an unbalance of the ocular muscles.

In the accessory sinuses when thus undeveloped, poorly ventilated and perhaps poorly drained, the mucous membranes will at least share the catarrhal condition of the nose, and the patient is prone to attacks of sinus suppuration later in life.

Important changes occur both in the dental arch and in the nasal structure as a result of the high arched palate. The superior dental arch is narrowed and does not articulate properly with that of the lower jaw. The teeth are crowded and erupt out of line. The premaxillary bone follows the line of least resistance and projects forward, sometimes to such an extent that the upper lip will cover the front teeth only by special effort.

This irregularity of development of the palate and dental arch so distorts the nasal septum that it offers a lessened resistance to still further arching of the palate, while its deflections and subsequent spurs tend to occlude the nose. The anatomy of the septum is interesting in connection with the development of deflections and spurs. As a base for support of the septum, the premaxillary bones and the palate processes of the maxillary and palate bones, form a high ridge in the median line capped with a V-shaped groove. The lower edge of the vomer is wedge shaped and fits into this groove. The vomer also presents a V-shaped crest for receiving the perpendicular plate of the ethmoid and the quadrangular cartilage. Dissected specimens of high arched palates usually show along the V-shaped crest, that one lip is undeveloped, the other overdeveloped. This is most marked at the anterior extremity and can often be seen clinically. The one hypertrophied lip of the crest shows in the nostril as a slight ridge at the base of the septum. The V-shaped groove is thus converted into a slanting surface and the vomer is thrown out of its bed. The smaller lip of the crest is pressed upon by the dislocated vomer and remains small. The larger lip is free from pressure and continues to grow. If it attains large size we call it a basal spur. The curving of the septum now produces a second displacement along the upper border of the vomer. One lip of the V-shaped cap is pressed upon and remains small. The other lip hypertrophies. Later when it attains

a large size we call it a bony spur. Or the spur may consist of the dislocated edge of the quadrangular cartilage, or it may be formed by both, a layer of the cartilage above and bone below.

The effect of the adenoids and tonsils on the Eustachian tubes and middle ear need not be dwelt upon. If the tubes remain open infectious discharges are likely to be blown into the middle ear. The Eustachian tube of a child is not only relatively, but actually larger than in the adult, and its entrance is less effectually guarded. If, however, the tube is closed by pressure, then the middle ear suffers from the constant cupping action following the absorption of air in the tympanum. Congestion, edema, proliferation of tissue and a chronic catarrhal deafness follow.

In many cases of mouth breathing the patient is dull mentally. This seems to be more pronounced if the obstruction is in the naso-pharynx. Different explanations have been advanced. One is that too little oxygen is taken into the lungs, especially during the sleeping hours. A second theory is the absorption of toxic material. An intimate connection between the lymphatics of the pharynx and the base of the brain has been worked out in the lower animals and probably exists in man. It is not unlikely that the catarrhal secretion of the adenoids is absorbed and carried into the cranial cavity. Or the adenoid growth may cause simply a blocking of the lymphatic circulation leading to the meninges, or the same result might follow to some extent, the disturbance in respiration. Ballenger advances the theory that changes occur in the air vesicles of the lungs which interfere with their function of allowing exchange of gases between the blood and air. Ballenger tried the experiment of producing nasal stenosis in guinea pigs, and on examination of the lung tissue a few weeks later showed that in the air vesicles the layer of endothelial cells had increased from a single layer to two, seven and in places twelve layers of cells. I have seen no reports of autopsies either upholding or refuting results obtained in these experiments.

In any obstruction of the pharynx or nose, the voice is impaired to a great extent, and if the nasal accessory sinuses fail to properly develop the voice is never of normal resonance, even after the respiratory obstruction is removed. The impaired resonance is noticeable to some extent in the ordinary speaking voice, and especially apparent in singing when the upper or head tones are attempted.

Treatment is not included in this paper, yet I wish to refer to one point, the desirability of physician and dentist co-operating in the correction of the irregular dental arch. If very great deformity of the

arch exists the establishment of nasal breathing will not give the complete correction.

An attempt at regulation by the dentist without correcting mouth breathing accomplishes very imperfect results.

A large percentage of the children suffering from mouth breathing are seen by the dentist alone. The crowded condition of the teeth is often the only symptom attracting the parents' attention. They infer that some teeth should be extracted to give more room for others ready to erupt. Whether the dentist follows the requests of the parents or not regarding extraction, it is unfortunate that usually nothing is said regarding the necessity for care of the throat or nose. I do not mean this to apply to all dentists, for it is largely to the leaders in dentistry that we owe our knowledge of the subject.

There are two cases to which I wish to refer. One was reported by Dr. Faught at the last meeting of the American Medical Association. A young man of 26 suffered a fracture of the nose in a foot ball game. The fracture was improperly treated and occlusion of one nostril resulted with partial occlusion of the other. The patient's dentist had models of teeth and palate taken previous to the accident. Models taken soon after showed that the man was developing a high arched palate and contracted dental arch.

The other case is one I saw while a medical student. A young man of about 18 had suffered from mouth breathing for several weeks. Soon after development of the mouth breathing he became extremely dull and sleepy. It was difficult to awaken him in the morning. He would fall asleep a number of times while dressing unless special effort was made to keep him awake. He could sit down and put on one shoe, but he would fall asleep before getting the second one on. He could do a little outdoor work if moving about, but if he sat down to milk a cow, would immediately fall asleep. On examination a large fibroma was found completely filling the naso-pharynx. The growth was removed and in a few days the father reported that the boy's sleepiness had disappeared. Later, report was sent that there was a recurrence of the growth and a return of the drowsy condition. I heard no further reports of the case.

I wish, in closing, to give a brief summary of the pathological changes and emphasize the need of treatment.

Neglect of respiratory obstruction in a child can result only in facial deformity that must be carried for life: hollow cheek bones, irregular teeth, and possibly a life habit of mouth breathing. The sense of smell is interfered with. The teeth in mouth breathers decay early. The throat, larynx, bronchi and air vesicles suffer from the

exposure to the air that is dry and often of improper temperature. Sleep is disordered. Nasal and accessory sinus catarrh exists. Hearing is impaired and aural suppuration not unlikely. The voice may be permanently injured. Digestion is impaired by poor mastication and by swallowing catarrhal discharges. Mental and physical energy are decreased and the patient given a serious handicap in his or her life work.

KORSAKOFF'S PSYCHOSIS—REPORT OF A CASE.*

BY U. O. B. WINGATE, M. D.

MILWAUKEE.

In 1887, Korsakoff published his first article descriptive of what has been termed by various writers as "Korsakoff's Psychosis," or "Korsakoff's Syndrome." Korsakoff described it as a "Polyneuritic Psychosis" and suggested the name "Cerebropathica Psychica Toxaemica."

In the autumn number of *Brain*, in 1902, there appears an article entitled "On Changes in the Central Nervous System in the Neurotic Disorders of Chronic Alcoholism," by Dr. Sydney John Cole, in which he refers to thirty-eight articles published on the subject, fourteen in the English language, but many of them were devoted to multiple neuritis.

In the January number, 1904, of the *Journal of Insanity*, Dr. Henry W. Miller, pathologist and assistant physician at the Taunton Massachusetts Insane Hospital, presents an article in which he refers to twenty-two articles, of these he refers to five only in the English.* Since then other references have appeared in the literature. Some of the writers have claimed that the condition is not entitled to be classified as an independent disease, but that it is a symptom-complex which might accompany other diseases, but there appears to be a growing tendency to consider it as an independent and individual disease, although perhaps that position may not as yet have become fully established. From observations made I believe cases may be found in our public institutions which are not now recognized as such, but which could be properly classed under the head of this psychosis.

*Read before the Milwaukee Medical Society, April 28, 1908.

*Dr. Arthur W. Hurd, Superintendent Buffalo State Hospital, N. Y., presented an interesting article and report of 5 cases at the annual meeting of the American Medico-Psychological Association, 1905.

It has been perhaps well defined as a condition characterized by "loss of memory for time and place, with impaired association of ideas, accompanied at times with hallucinations and delusions." It is estimated that at least three-fourths of the cases are of alcoholic origin, but other factors have been considered as possible causes, among which are typhoid fever, tuberculosis, gastro-enteritis, leukemia, malignant growths, jaundice, arsenic, lead, and other poisons liable to produce multiple neuritis. It appears to be much more common in men than in women. It appears to be well established that it is a toxic condition operating upon the central or peripheral nervous system, or upon both, but whether the toxemia is the result of direct poisoning, or is autotoxic, developed on the field prepared for it by other poisons, is a question not yet fully determined.

The physical conditions appear to vary in different cases, but the mental picture is more uniform in character, the most prominent symptoms being "memory weakness, persistent inability to retain impressions, loss of orientation and falsification of memory." This reasonably clear, definite and distinct mental condition would seem to entitle it to the position of a definite psychosis rather than a symptom-complex.

It has occurred to me, in the study of this condition, that if other poisons were eliminated as etiological factors, and only alcohol considered, there would be but little difficulty in establishing a true psychosis. We know that alcohol affects different persons in many different ways, and that much is yet to be learned concerning the effects of this agent; this is evidenced by the many different opinions entertained by different observers. Nevertheless, no doubt more evidence is needed before positive conclusions can be reached.

The pathology, so far as it has been studied, indicates that it is a serious disease, and that the percentage of recoveries is small. Dr. F. Robertson Sims (*Journal of Nervous and Mental Diseases,* March, 1905,) gives a summary of anatomical findings in two cases, as follows: First case, "slight arteriosclerosis, hypostatic pneumonia, fatty infiltration of the liver, acute degeneration of many of the peripheral nerves, axonal reaction in cells of the anterior horns, Clark's columns, and many cranial nerve nuclei; degeneration in the posterior columns, direct cerebellar tracts, and the root bundles, moderate acute alteration of the cortical cells."

Second case, "general arteriosclerosis involving the aorta and coronaries, fatty degeneration of the heart, liver and kidneys, acute bronchitis, acute degeneration of the peripheral nerves of the lower extremities and also in the vagi, axonal reactions in the cells of the

anterior cornua, in Clark's columns, some cranial nuclei, and the Betz cells of the cortex, also vascular changes in the cord and cortex, with numerous microscopical hemorrhages throughout the cerebrum, acute degeneration of the cortical radiations, and of both motor and sensory systems of the cord, as well as degenerations of the cord not easily reconcilable with the systemic changes."

Dr. Cole in his article before referred to, gives the post mortem findings in one acute case and two chronic cases. In the latter there were "fibrosis of the tibials, vascular changes of the nerves, and in one case there were vascular changes in the cord, changes in the cells of the anterior cornua and spinal ganglia, changes in the cells of the posterior cornua, Clark's columns, in the direct cerebellar tracts, in the cells of the cranial nerves, in the pyramidal tracts, of the Betz cells of the cortex, and in the frontal thalmic fibres."

While the number of post mortem reports is too small to enable us to draw any positive conclusions, they indicate similar findings.

Premonitory symptoms have been observed in some cases, such as changes in disposition, patient may become irritable, whimsical, and general weakness and vertigo may follow; an onset has occurred with stupor in which the patient remained in a comatose state for weeks, then gradually cleared up. Most frequently the onset is acute with delirious symptoms or insomnia, patient does not like to be left alone, especially at night, vague fears may be present. The irritable condition may continue, or give way to apathy and marked indifference. Emotional depression is sometimes observed. The knee-jerk may be absent, or absent at one time and slightly evident at another time; it may be absent on one side and present on the other, this condition was reported in one of Miller's cases. The more classical symptoms are:

1. Memory weakness for recent events.
2. A defect of the ability to retain certain impressions in the consciousness, and after a definite time to reproduce them.
3. Pseudo-reminiscences, or falsification of memory.
4. Loss of orientation.

The two latter symptoms appear to be very constant and characteristic. The symptoms may follow acute alcoholic poisoning, and occur with delirium tremens, and there may or may not be polyneuritis. In some cases the symptoms of neuritis may appear first, and the mental confusion, memory weakness and loss of orientation come on later. In other cases the mental symptoms may appear first without any evidence of an acute toxemia. Cases have also been reported in which the disease was ushered in with symptoms of tox-

emia, and even with epileptiform convulsions, others by an apparent apoplectic attack. Whatever form the onset may take, there are soon observed the peculiar mental symptoms which characterize the psychosis. It has a tendency to run a long course, and the patient is not liable to die from the violence of the toxemia. A neuritis may run a course of weeks or months with both mental and physical symptoms, and finally recover; others may pass through a long course with delirium, confusion, pain, paralysis and trophic ulcers, leaving a degree of confusion, mental weakness, and perhaps a chronic condition and dementia.

As to the prognosis, we know that if a complete degeneration of true nervous tissue occurs there can be no regeneration. If the degeneration is only partial, or in its very early stages when proper treatment is employed, the prognosis is more favorable. In many cases of alcoholic poisoning at or following the middle period of life, there will be found beginning changes in the liver, kidneys, heart and perhaps the brain. It has been my experience in the treatment of such cases (and I now refer to the usual cases of alcoholic poisoning and not of this psychosis), that if the patient is not too old, and the changes slight, if the poison can be eliminated and proper treatment employed, some remarkable recoveries will follow. We must, however, keep in mind the tendency of this class of patients to relapse and return to their former intemperate habits, and this tendency will persist unless the patient has fully recovered from any degree of tissue degeneration, and this requires time. From six months to two years must be insisted upon in order to effect a cure, and I am convinced that our failures are due to the short time we hold these cases under careful and persistent treatment.

In these cases of Korsakoff's psychosis due to alcoholic poisoning there are marked changes in the brain, and the prognosis is necessarily unfavorable in the majority of cases. Where the degeneration has not progressed too far, there may be some improvement, but the process is very slow, and some defects will be left. In those in whom the degeneration has advanced to a degree that the heart, liver, kidneys and brain are involved, recovery may be impossible, and may go on to a fatal termination. Believing that all cases of this psychosis should be reported until our knowledge of the conditions is more complete, is my excuse for reporting this single case.

Mr. B—— was referred to me by Dr. H. P. Chambers of Florence, Wis., and came to my office with his sister on April 19, 1906; he was at once sent to a hospital for observation and treatment. On examination the following was noted: Patient is a large, well devel-

oped man, 40 years of age, single, a hotel keeper by occupation. Family history negative, and there was no history nor evidence of specific disease. From his physician who had known him for a number of years, it was learned that he had been in the habit of taking large amounts of whiskey for a number of years; he did not become intoxicated, but to use the words of his physician he was "a soak." For the past few months he had practically refrained from drinking. He had never suffered from any severe illness, nor sustained any injury. About three months ago he had made a trip into the woods for some purpose, and had returned before he was expected, and in a state of partial stupor; he had lost all ambition, was very sluggish, memory for recent events nearly abolished, and he was unable to find his room in his own house. He was mentally unable to care for himself; the temperature was subnormal, extremities cold, face purple, bowels constipated, skin dry, and there was no perspiration although he was in the habit of sweating much and freely. There was a peculiar odor about him which suggested that sometimes observed from cooking in a lumber camp. He had put on fifty pounds of flesh, which was that much in excess of his normal weight. This is unusual, for in the cases reported—as far as I am able to find—there has been a loss in weight in all, or in those where weight was referred to. The pupils responded sluggishly to light. Examination of vision by Dr. J. Steele Barnes gave negative results. Examination of the urine was also negative. The knee-jerks were at times absent, at other times a slight response could be obtained. The plantar, cremaster, abdominal and Achilles reflexes were absent. No Babinski, Gordon or Oppenheim signs present. No further motor or sensory symptoms noted at any time. A fullness in the head was mentioned when questioned, but no headache was complained of. He believed me to be a physician whom he had seen, and who lived some distance from his home in that part of the state. He would relate stories about his journeys taken a day or two ago, and that he was in Chicago the day before, when he had not been out of the hospital. When in the woods he had partaken of some tainted venison, and his relatives thought his condition might be from that cause, but this idea was not accepted by his physician at home.

At first, while in the hospital, he slept poorly—would get up in the night and wander from his room and was unable to find his way back again; in fact he would wander about the building night and day, and could not find his way back to his room without help; he was a source of much trouble to his nurses, though he was easily managed, and would go with the attendants when requested to do so.

The falsification of memory and loss of orientation were prominent and constant symptoms. After about two weeks he appeared a little better in some respects, he lost some flesh by a restricted diet, and slept better some nights. His temperature varied from 95° to 98° in the axilla, and his pulse ranged from 66 to 100. Soon he lost control of the bladder and bowels, and caused so much trouble that I was obliged to remove him to another hospital; there his sister remained with him during the day time, and he then caused less trouble. He soon regained power over the bladder and bowels, went out of doors daily, and slept better. If left alone, however, he would soon get lost and be unable to find his way. After being under observation for about two months he appeared to be somewhat better: he had lost about twenty-five pounds of his superfluous flesh, the pulse and temperature were nearer normal, he had control of the bladder and bowels, digestion was good, and he slept better nights. But he was sluggish, had no ambition, and there were still falsification of memory and loss of orientation. The knee-jerks were absent at the last examination. At this time he returned to his home, and his physician writes recently as follows: "Present condition as compared with that of two years ago is better; this improvement, though, is limited; his mind seems to be clear; reflexes are improved; control of eliminating organs more or less weak; not so fleshy but still very fat and puffed; muscular power feeble; temperature normal or near normal; heart's action somewhat improved, but, corresponding with his general state, weak. He understands better and memory not so falsified. Memory as to recent dates possibly improved. Does little turns about the house and barn and is able to converse with a little more intelligence. . . . . I am of the opinion, from my knowledge of his life and his progress the past two years, that he has possibly reached the limit of any decided improvement. . . . . Alcoholism is the primary cause of this fellow's disease, whatever it may be, and, in my opinion nothing else had anything to do with the trouble, directly or indirectly. Whether uninterrupted treatment could have established a greater degree of improvement, I do not know, but cherish a doubt. His general condition, however, is much better than I ever expected, and to this degree it is quite satisfactory, everything considered."

The treatment of this case while under my observation, consisted of a somewhat restricted diet, hot baths, and agents to stimulate elimination, later intestinal antiseptics, iodide of potassium, and still later, quinine, arsenic and small doses of strychnia.

From my limited experience I have no conclusions to offer, although much might be said relating to the effects of alcohol upon the

nervous system. The subject is full of interest, and it is one that will bear frequent consideration.

Dr. Wm. A. White, Superintendent of the Government Hospital for the Insane, at Washington, in his recent "Outlines of Psychiatry," says: "The rôle that alcohol plays in the production of psychoses while admittedly an important one, is not at all well understood." Such a statement from one with such extended experience and observation merits our thoughtful consideration. A conservative interpretation of recent statistics indicates that about twelve per cent. of cases of insanity in the public institutions of the United States result directly or indirectly from the influence of alcohol. Dr. White also calls attention to the fact that alcohol may enter as an etiological factor into the production of symptoms ordinarily considered to be quite distinct from the alcoholic psychoses properly so called, such as maniac-depressive insanity, and by many it is considered an important causative agent in paresis.

He tabulates nine clinical conditions causing mental disturbance resulting from alcoholic poisoning, including Korsakoff's psychosis, namely: delirium tremens, chronic alcoholism, alcoholic pseudo-paresis, alcoholic epilepsy, alcoholic hallucinosis, alcoholic pseudo-paranoia, Korsakoff's psychosis, dream states and dipsomania. Also, that neurasthenia and hysteria may both occur as results of alcoholism.

The pathological lesions found in the brain and its coverings are numerous and important: they include "pachy-meningitis, edema, congestion, thickening and opacity of the pia-arachnoid, atrophy of the convolutions, sclerosis of the vessels, degeneration of the cells and increase of neuroglia."

It can safely be said that chronic alcoholism in all its forms tends from the first to an ever increasing dementia.

In conclusion, I desire to say, that basing my belief upon my studies and somewhat limited experience, I believe that we should limit what we understand as Korsakoff's Psychosis to conditions resulting from alcoholic poisoning alone.

DRINKING WATER—ITS USE AND ABUSE.

BY J. H. VOJE., M. D.
OCONOMOWOC, WIS.

This short article is a supplement to a paper on Arterio-sclerosis which I read at a meeting of the Waukesha County Medical Society about a year ago, when I gave as one of the causes of atheroma the excessive use of drinking water, especially in a distilled form.

Physicians, as a class, are as a rule kept busy with overcoming the results of their fellow creatures' shortcomings and ignorance. I mean, they have continually to battle with disease and pathological conditions, so that they have little, if any, time left for other studies, and often lose sight altogether of facts and laws relating to the healthy individual. Yet no profession is, perhaps, more justified to study biology and natural science than the medical.

It may not be out of place, therefore, now and then to read a paper on fundamental questions relating to the preservation of health and the prolonging of life.

Drinking water, good water, is one of the absolute necessities of life, vegetable as well as animal; our earth is therefore supplied with an abundance of water, though not very evenly distributed, nor is it always suitable for drinking purposes.

From the earliest times, therefore, human beings or animals, from knowledge or out of instinct, sought and erected their abodes near a source of sweet water, and where a sufficient supply could not always be had, ways and means were invented to store rain or river water as is still done today in many parts of the earth.

The best drinking water is supplied by a common spring flowing from a rocky, gravelly or sandy subsoil. Such water is sufficiently pure, contains a small amount of minerals so as to be congenial (isotonic) to our cell-life, and is most refreshing because it contains a small amount of carbonic acid gas.

Next to the springs comes a well, if sunk in the proper place in relation to buildings, outhouses and barns, etc., in short, if kept sanitary. Then comes river or lake water, which however, generally requires filtering or even boiling. The least wholesome are boiled and distilled waters, which are also not refreshing because they are flat and dead and because they extract important salts from our cells and weaken the electric tension in the cells, thus reducing their vitality. Stored rain water, if pure, is a little less objectionable.

Our human system contains about 64% of water; this water is in constant motion, acting, so to speak, as a carrier, removing from our body effete material, used up tissue—by way of the kidneys, the skin and the lungs—and supplying the system in turn with building and heating material, carrying these in solution into the blood current. For this metabolism we need daily about three quarts of water, which, if not already contained in our food, must be supplied in the form of drinks.

In case our supply of water is less than we excrete, the mucous

membranes of the mouth and stomach report, and an irresistible desire (thirst) for drink, generally for water, sets in.

Men working or marching in the hot sun give off water rapidly; if this cannot be replaced or is not, then death may set in from thickening of the blood—insolation.

Many of our food-stuffs contain a large amount of water, such as fresh vegetables, apples and other acid fruits. They quench thirst and lessen the desire for water.

Our stomach digests best if our food is but little diluted. The use of soups and water before meals should therefore be discouraged. Our stomach and intestines dispose of water or fluids best if offered in nicely dispersed ways, as we get it in the cells of fruit, so to speak, from a sponge. A wise housewife will therefore always have at meal times juicy fruit, and will offer mildly seasoned dishes, thus preventing an unnatural and unwholesome thirst. Fruit eaters and milk drinkers are seldom alcoholics.

People or patients are urged often by their physicians and others to drink large quantities of water, especially in cases of so-called biliousness, catarrh of the stomach and the uric acid diathesis (so-called). If water, cold or hot, is recommended but for a short time, it certainly may do a great deal of good, especially if also the diet is corrected, and plenty of exercise taken; in reality the change of diet and outdoor life and exercise are the principal parts of the treatment, because the latter burn and oxidize retained tissue residues, thus making them soluble, when they are readily eliminated; water hastens the elimination somewhat and may dissolve salts already precipitated in the tubes and pelvis of the kidneys or may liquify the bile somewhat, though we have better means of doing this. Directly out of the tissues drinking water removes but little, because the cells do not part very readily with their salts. However, as stated above, an excessive amount of good water taken for a period of a month or so may be indicated and may do good. It is a different matter, however, if the lay class prescribe this cure and continue it indefinitely.

The continuous supply of an excessive amount of water to our system is by no means harmless. We must remember that our body is not a sieve which lets the water simply pass; every drop that we drink must be worked, so to speak. Our body is a complex machinery which works more slowly at once if overtaxed with water. Excessive drinking causes such a strain on the stomach, intestines, kidneys, lungs, skin and blood vessels, that one or the other or all, will suffer in time and will do their work insufficiently if persistently thus abused.

The drinking of very cold water is certainly harmful—just as

the nerves of our hands and feet are made numb and are temporarily paralyzed by a low temperature, so are the nerves of our stomachs and intestines acted upon by icewater, and acute or chronic gastritis may be the result, even death may set in if icewater is imbibed rapidly while the system is overheated. The continuous use of icewater will certainly bring about atonic dyspepsia. A perfect drinking water of a temperature of about 50 degrees is a necessity and a blessing best appreciated by those who have been for a time deprived of it.

If we eat and live correctly the desire for drinking water will be natural and there will be no danger of drinking too much.

Hot water, as we all know, has its especial dangers in advanced cases of atheroma and heart disease.

An ordinary strong adult needs 2818 gr. water in twenty-four hours. An ordinary day's ration of food contains about 1500 gm. of water. 1318 gr. of water have therefore to be supplied in the form of drinks during the 24 hours. Very many people consume, however, with each meal 500 gm., which is two cups or glasses, of liquid, and drink between meals and at bedtime another 1000 gr., or a quart, in the form of water, beer, cider or buttermilk, etc., while a staunch beer consumer doubles and trebles this amount easily. Children, also, who have a daily supply of sugar and candy and partake of the often highly seasoned food of their home table, generally drink twice the amount of water they would consume if rationally fed.

The dilution of the blood in these cases is continuous, especially since this over-amount of water taken during two-thirds of the twenty-four hours is only gradually excreted and much of it is imbibed into the tissues by endosmosis, and from the tissues the water gets into the lymphatics. We have therefore not a simple thinning of the blood, we have hydremia resulting.

From the above we see that three factors are active in producing this condition: faulty selection of food, faulty preparation of the same, and an excessive supply of water. We may safely say that three-fourths of our population are mildly hydremic and dysemic, and it may not be easy to demonstrate today a perfectly healthy adult.

The consequences of this hydremia are serious. We know that red corpuscles disintegrate more readily in a diluted serum; a mild form of dysemia is therefore produced which means reduced vitality, and a circulus vitiosos is formed. The blood serum is deficient in its normal salts, especially in sodium; it cannot therefore effectively cope with an infection. A deficient blood plasma cannot produce very active leucocytes (antibodies), and these therefore cannot cope with germ infection as readily as perfect ones. We have, therefore, a

chronic susceptibility to infection, furthermore the sluggish venous stream, the weakened red blood cells maintain a chronic hypervenosity of the blood, thus gradually loading the system with unoxydized materials (autotoxins) which is overcome for a long time by increased heart action as long as that heart remains strong; but after years this organ weakens, and with the age of forty or so a chain of symptoms will turn up, generally more or less misunderstood, because often plenty of water is prescribed for these cases of faulty metabolism, while a gross reduction of liquids, a simple diet, daily lung gymnastics and out of door life together with a little sulphate of soda, will produce wonders if no serious organic changes have yet taken place.

Chlorosis and simple anemia are also the followers of hydremia produced by the imbibing of an excessive amount of fluids.

Our foodstuffs almost always contain an excessive amount of iron; a want of iron in the food is, therefore, not generally the cause of these conditions. Chlorosis is actually readily cured without giving any iron besides that which is contained in an ordinary judiciously prepared and selected diet.

It is the chronic venous condition of the blood and the want of carbonate of soda caused by drinking too much water, which help to cause chlorosis. Out of door life, hydrochloric acid or nitro-muriatic acid, together with breathing exercises and dry diet, cures it. Why do the Blaud's ferruginous pills act so well? Because they contain carbonate of soda and sulphate of iron, the latter acting simply as an intestinal antiseptic. Blaud's ferruginous mass is a happy mixture which aids most decidedly in the cure of chlorosis. But the mass is not so effective because it developes carbonate of iron in the nascent state in the intestines for absorption; it is because the free carbonate of iron acts as an antiseptic and also binds the free sulphureted hydrogen always present in excess in cases of chlorosis, and which binds the iron salts of the food taken, thus aiding in the production of chlorosis.

The nascent carbonate of iron of Blaud's mass neutralizes the sulphureted hydrogen, the freshly formed sulphate of sodium stimulates the liver and helps carry away the foul bowel contents, thus putting the intestines in a condition to readily absorb the food irons which after all are the most congenial to our animal economy, and in that way chlorosis is cured.

To sum up: An ideal drinking water is clear, tasteless, gives no nitrate reaction, contains a small amount of earthy and alkaline salts, some carbonic acid gas, and has a temperature of about 50 degrees.

The continuous use of ice water is harmful; it paralyzes the gastric and duodenal nerves.

Filtered lake, river and rain water come next to pure spring or well water in wholesomeness.

Boiled water is repulsive, non-refreshing, and should only be used where good natural water cannot be had. Distilled water is harmful to the system because it abstracts from our very cells vital salts, especially irons, thus disturbing electric equilibrium and reducing the power of resistance.

Distilled waters have long been discontinued in eyewaters on account of the irritation of the conjunctiva resulting from its use.

Any drinking water, if persistently taken in excess, is harmful; it produces hydremia, which interferes with proper oxidation. The cell tone is gradually lessened, the power of resistance is reduced, and the door is opened to infection and chronic ailments of an asthenic nature; it overburdens the circulatory apparatus and aids in producing arterio-sclerosis.

Water is an excellent vehicle for medicines and minerals. An excellent example of this we have in the natural mineral waters of the earth. As a remedial agent the mineral waters, if properly selected according to indications, are superior to the drugs in many ailments.

Mineral waters should be used and taken at their origin. Many springs have compositions, gases, or radioactive elements, or contain even radium, all of which qualities would be destroyed or altered in bottling and shipping.

For a number of years physicians have made use of water to carry chloride of sodium into the blood or tissues, with the most happy results, as a reviver.

The French have of late apparently improved upon this mode of treatment by using an isotonic solution of seawater subcutaneously. The biologist Rene Quinton, of Paris, has established a seawater dispensary, and the Duchess of Sutherland is making arrangements with him to have a similar one started in Scotland. M. Rene Quinton, after years of experimenting, maintains that all organic life originated in the ocean, in seawater. He says our blood is really an oceanic liquid in which the red cells bathe and thrive best.

He says the subcutaneous injection of seawater, properly prepared, rejuvenates and renovates our corrupted vital medium (plasma) in disease. The fatigued and poisoned cells at once resume a normal existence, being restored to their natural medium—an improvement, therefore, on our normal salt injections.

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EDITORIAL COMMENT.

THE ANNUAL MEETING.

The plans for the meeting to be held in Milwaukee, June 24, 25, 26, are progressing very satisfactorily. So pleased are we with the promising outline of events that has thus far been submitted, that we do not hesitate to say that from every standpoint we may look forward to one of the best—perhaps the best in real value—medical meetings ever held in our State. The Program Committee has been hard at work, with the result that a list of papers will be submitted that is many shades better than anything ever before accomplished in our Society. Then the entertainment Committee is still at work, and the hospitality shown the out-of-town members on previous occasions will be repeated. Special mention must be made of the interesting clinical demonstrations that are to be held at various hospitals. These

in themselves will be a feature of great value, and their importance to the visiting medicos must not be overlooked. A schedule will be issued so that those who may wish to avail themselves of this opportunity for post-graduate instruction, will be enabled to do so.

The preliminary program and a brief report of the Committee of Arrangements are published elsewhere in this issue. The June JOURNAL will be mailed on or before the 20th, several days in advance of the meeting. This issue will contain much detailed information pertaining to the meeting, including announcements of program, entertainment and other committees. There will also be published illustrations of all city and county hospitals, and local medical colleges.

We wish to repeat the exhortation of last month: lay aside your labors for the three days—June 24, 25, 26—and join your fellow men in a brief scientific debauch. It will do you good—it will do them good. Let each one read and study the program when issued; select the subjects that sound interesting—those to which he feels himself attracted and then come primed for the occasion. This sort of concerted work only can make the meeting a success. Let each and every member of the State Society help to make it such.

So, once more: To Milwaukee, June 24, 25, 26!

THE AMERICAN MEDICAL ASSOCIATION.

The coming meeting of the American Medical Association in Chicago promises much that will prove of very great interest. First of all, the Chicago physicians are showing themselves equal to the occasion, for they have gone at the task of suitably providing for the care, keep and entertainment of 15,000 visitors—with tremendous zeal—truly the spirit of Western hospitality. The sections are numerous, and all the programs that have come to hand indicate that a wealth of good scientific material will be presented. Prominent guests from home and abroad will heighten the interest of the gathering.

The *Journal of the American Medical Association* has been so replete with advance information that there is little need to more than merely call attention to what will undoubtedly prove to be one of the greatest medical gatherings—most prolific in results—ever held in this country.

WHOSE IS THE FAULT?

Statistics gathered in Milwaukee indicate that there exist, on an average, 2,000 cases of tuberculosis in that city. Figures likewise show that there are about 450 deaths annually from this disease. The

deduction is therefore plain that there must arise annually about 450 *new cases* of tuberculosis.

All of these 450 patients were incipients at one time—that is, were so clinically, and the majority of them in all probability consulted medical advice, at this period, before the development of the later stages. What becomes of these incipients? How many of them have the benefit of early sanatorium treatment? It is common knowledge that they do better under the directing influence of sanatorium life and regime than when left to their own resources at their homes or in distant parts. Three months at a sanatorium will teach the patient *how to live, in order to continue to live.* That is nature's secret, withheld from most of those who contract tuberculosis, and—for that matter—also withheld from many who have not contracted this disease.

Tuberculosis sanatoria for the treatment of early cases ought to be filled to their utmost capacity all the time. Especially should this be true of charity and semi-charity institutions. The Blue Mound Sanatorium, a Milwaukee institution, has a capacity of 22 beds; it is a semi-charity institution, the average charge being but seven dollars per week, far less than the cost of maintenance. And yet, small as is its capacity, it has frequently had but little over half the desired number of patients. Why is this? It does not cater to the rich, nor to the poor, but to those of the middle class whose incomes or savings enable them to defray part of the expense of their keep, thus preventing them from losing their self respect and becoming a prey to pauperization. Does not the fault lie with physicians? It would seem so. They are careless; they frequently do not make thorough physical examinations; they acquiesce in too many lay diagnoses of "stomach coughs"; they continue too long the office treatment of these early cases; in their misguided sympathy for the patient they fail to tell him of his affliction.

All this is wrong. If the patient is tuberculous, tell him so as early as you can. Then make him seek that means of treatment that will enable him to look forward to a long period of usefulness for himself and others, even though there be a hiatus of a few months or a year in his active and productive career.

FROM ANOTHER POINT OF VIEW.

Did not the writer of the editorial "Two Kinds of Wealth," printed in the *Journal of the American Medical Association,* April 25, 1908, jump into an awful pot of rot in his effort to fittingly memorialize Carnegie's words? It seems that a surgeon whose profes-

sional income is estimated at $100,000, regretted—despite his material success—that he had not adopted a business career. By what right does the writer of the editorial referred to, assume that the surgeon regretted his course because of a belief that he could have made more money in a business career? Mr. Carnegie, on the other hand, heaved a deep sigh of regret at a recent gathering of scientists, because instead of being a physician he is a mere philanthropist—one who has inspired more great work in medical science than any one of us ever did who has had to endure "the greed of patients," "the dragging weariness of our overwork," "our often pitiless poverty," etc., etc.

Mr. Carnegie's utterances after a good dinner should not be taken too seriously. Perhaps his Scotch humor prodded him to feed a vanity that he found quite ludicrous. At best, it is most reasonable to assume that he expressed the characteristic restlessness that makes all creatures think that the pasturage is always sweetest on the other side of the fence.

All commerce is not death-dealing strife, and if it were, is it more honorable to be a vulture than it is to be an eagle? We live upon the money of commerce, and when we charge the daily wage of a workingman for a hasty examination and a get-rid-quick prescription, we've no license to puff ourselves up like a race of Jack Horners. Even a $100,000 surgeon might with credit feel that he would be happier hammering down the cost of living for millions of people than he is fondling the insides of a few millionaires' abdomens.

A FREE DISPENSARY FOR TUBERCULOSIS PATIENTS.

The agitation in Milwaukee which during the past two years has sought to interest and enlighten the public on the subject of tuberculosis, its suppression and cure, has already received the most gratifying response. The Blue Mound Sanatorium, an instituttion for patients of moderate means, has just completed its first year, bringing encouragement to its founders and relief to a large number of patients whose means prevent them from seeking the help of more expensive institutions.

Another striking advance in the crusade, undertaken by the Milwaukee Society for the Care of the Sick, is the recent establishment on the south side of the city of a free dispensary for tuberculous patients.

Through the suggestion of Dr. Bading, the commissioner of health, it was decided to locate the dispensary in that portion of the city in which, from the records of the department, the largest num-

ber of cases is shown to exist, and the physicians of the south side have almost to a man given the project their heartiest support.

Patients reporting at the dispensary will be visited at their homes by the district nurses of the Visiting Nurses' Association; will be taught the means necessary to prevent the communication of the disease to their families; and they will be encouraged and instructed in the modern methods of feeding, rest cure and open-air treatment as carried out in the home. Patients will report at intervals at the dispensary for examination and instruction by the medical staff. They will be given literature bearing upon the disease, and provision will be made whereby the very poor may be supplied with fresh eggs and milk and other necessities.

The experience of other cities has shown the immense value of these institutions, especially in the dissemination of knowledge concerning preventive measures.

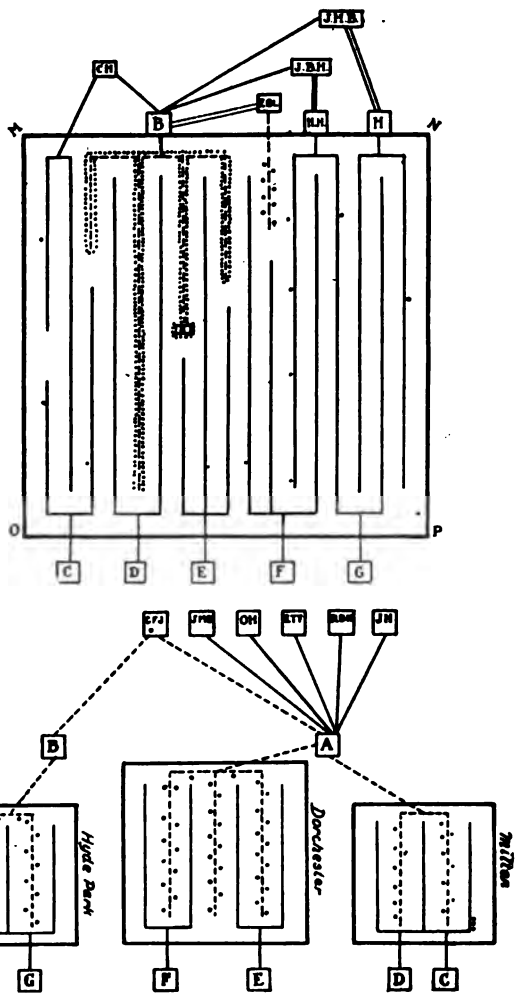
The South Side Dispensary will be available to patients from all parts of Milwaukee, but its success, which is assured, will determine the location of free dispensaries in other parts of the city. The district between Vliet and Walnut streets and west of Third street is a hot-bed of tuberculosis where a free dispensary would be capable of accomplishing an immeasurable amount of good. The JOURNAL endorses most heartily the efforts of those who are furthering this movement and bespeaks the interest and moral support of the medical profession and of the general public in the cause.

Thus one more link in the chain has been forged, and with the establishment of a hospital to receive patients in advanced stages of the disease, it may be said that Milwaukee's equipment for the fight will be complete. It is hoped that those who are interested will in the near future inaugurate a movement to establish such a hospital where hopeless cases may be cared for and at the same time be segregated from their fellows. That such a hospital is much needed is forcibly shown by the large number of patients who must be refused by the Blue Mound Sanatorium, equipped as it is to treat only the earlier stages of the disease.

Of the fourteen general hospitals of the city, not one, excepting the County Hospital, which receives only the indigent poor, will accept consumptive patients, and consequently they must remain a burden and a menace to the whole community until the urgent need is supplied.

A LESSON WITH A MORAL.

Most conclusive evidence of the means by which typhoid fever, scarlet fever and diphtheria may be spread is contained in an article by Trask of the Public Health and Marine Hospital Service, appearing in a volume on "Milk and its Relation to the Public Health" recently published by the government. By a series of diagrams, two of



which are here reproduced, he shows that during the epidemic of typhoid at Stanford, Conn., from April 15 to May 28, 1895, 352 out of 386 patients took their milk supply from dealer B; 12 others were known to have used this milk at a café supplied by B; 2 obtained it

at a bakeshop selling the same milk, and 2 more obtained it in other ways, making in all 368 cases traced to the one source.

An epidemic of scarlet fever at Norwalk, Conn., occurred in November, 1897. Between October 25 and November 9, 29 cases developed. School infection was eliminated. 27 of the 29 patients were furnished milk by a dealer whose supply came from three farms at one of which a case of scarlet fever had occurred, so that here the proof was conclusive.

The diagram illustrative of the epidemic of diphtheria at Milton, Dorchester, and Hyde Park, Mass., shows how that disease was transmitted by the original case at the milk distributing center C. F. J.

Severe epidemics of sore throat and pseudo-dipththeria are also reported from England as being transmitted from farms to various towns through the milk supply.

In all, Trask has compiled from the literature 179 epidemics of typhoid since 1881, all traceable to milk infection; 51 epidemics of scarlet fever; 23 epidemics of diphtheria; 7 of sore throat and pseudo-dipththeria. Prior to that time Busey and Kober had compiled 56 epidemics of typhoid since 1851.

Argument from these statistics is unnecessary, and State Boards of Health should be provided with funds and power to inspect and regulate all sources of milk supply, and especially those of the larger municipalities.

THE FILTHY SMOKING CAR.

The extinction of malarial and yellow fever is but a drop in the bucket compared to the great warfare which is now going on in the endeavor to subjugate tuberculosis. More energy is probably being expended at the present time to limit the ravages of this disease than has ever before been focused on the accomplishment of any definite project in medicine. The climax of present day thought and argument is reached in the statement that tuberculosis is preventable. With this in view anti-spitting ordinances are becoming quite a la mode in many communities. But while the desire to prevent the wholesale distribution of the tuberculosis bacillus may be the pivotal point upon which these arguments hang, yet there is probably a strong desire to be rid of the disgusting and habitual expectorator of tobacco juice as well.

Much has been written regarding the danger of traveling in sleeping cars, especially those running on the lines going to the southwestern part of the country, the Mecca of many of the worst

cases of pulmonary tuberculosis. When one reads that the blankets of some of these cars have not been exposed to the fresh air and sunlight for a month it does incline to make one believe that some of the great corporations have little regard for sanitary principles.

Compared with the sanitary condition of the smoking cars on some of our local trains one would much better take chances on the southwestern sleeping cars. The smoking compartments of our interurban electric and of the smoking cars of railroad trains are frequently veritable pig pens of filth. The companies provide no or insufficient receptacles into which to spit, and as a result at the end of a run the car is often a regular swimmingpool. Cleaned in a perfunctory way and sent out again these cars must soon become a densely populated menagerie of all known species of bacteria.

At the present time the sanitary regulation of these cars is entrusted to the care of local health officers through whose territory the cars may pass. If the State Board of Health has any rules covering this situation they certainly belong to the dead letter list. In these days of increasing sanitary regulations we think it should dawn upon the mind of the superintendent of one of these roads to inaugurate some system to do away with the present condition before being forced to do so by law.

Man has regulated the sanitary transportation of cattle; some day he will get around to regulate his own sanitary transportation.

THE PHYSICIAN HIMSELF.

Long life is not one of the physician's long suits. The medical cynic who—in response to the query "how long do doctors live?" replied "about twice as long as they ought to," evidently would have paraphrased Puck's motto into "what fools these doctors be." Perhaps he was right—but that is another story and doesn't belong here.

At a recent meeting of the Philadelphia County Medical Society, the illnesses and causes of death of physicians received consideration. Among the frequent causes of death are mentioned the drug habit, cardio-vascular degeneration (angina pectoris has earned the appellation "doctor's disease"), and tuberculosis (present in 15 per cent. of 115 cases analysed); diabetes, nephritic colic, gout, and neurasthenia were also found rather prevalent. It is probable as one physician present stated, that the feeling of responsibility toward his patient is such that the physician does not lay down his work until the need is imperative. This must doubtless be considered to be true, and determines the greater severity of numerous commoner illnesses when they attack the physician.

There is little comfort to be found in the conclusion of the old French doctor Rabelais: "There be more old drunkards than old physicians."

A CLEAN MILK CAMPAIGN.

La Crosse has adopted a milk ordinance regulating the sale of milk and cream. Its provisions are much the same as are those embodied in the Milwaukee ordinance of recent date: all dealers must take out a permit, and all cattle furnishing milk for distribution within the city must be kept in sanitary stables and be tuberculin tested.

It is altogether probable that the legislature will at its next session be called upon to pass a measure governing the sale and transportation of milk. When this is accomplished, the opposition now shown in various sections of the state will cease, and talk of reprisals will be given an effectual quietus. With Milwaukee in the lead, and a progressive city like La Crosse fallen into line, there will doubtless soon be 'other counties heard from.'

NEWS ITEMS AND PERSONALS.

Dr. Morris L. Henderson, of Milwaukee was married May 14, to Miss Odile Sanger, of Milwaukee.

D. Appleton and Company, New York, announce their removal to their new offices, 29—35 West 32nd Street, New York City.

Dr. W. F. Becker of Milwaukee was reappointed by the Governor as trustee of the Milwaukee Hospital for the Insane, his term to expire in May, 1915.

Dr. A. W. Meyer of the University of Minnesota and formerly of Johns Hopkins has accepted the professorship of Anatomy in Northwestern University Medical School.

Dr. A. N. Richards of the College of Physicians and Surgeons of New York City has been appointed professor of Pharmacology in Northwestern University Medical School.

Dr. E. M. Richards, a former resident of Milwaukee, died on April 1st, of typhoid fever, at his home in Thermopalus, Wyo. Dr. Richards was 38 years of age and left Milwaukee eight years ago.

Dr. N. F. Wetmore of North Freedom, who has practiced medicine there during the last twenty-eight years, has sold his practice and property, and with his wife will make an extended trip in the south.

A Free Dispensary for Tuberculosis was formally opened May 12th in Milwaukee by the Milwaukee Society for the Care of the Sick. The Dispensary is located on the south side of the city, in a district where tuberculosis is prevalent.

Gift for Hospital. According to the public press, an $18,000 addition to the Sacred Heart Hospital at Tomahawk, to be completed by August 1st, is a gift made through the Bradley company. The donors are believed to be Edward and James Bradley of Milwaukee.

Thomas Lewis Edwards, M. D., Jefferson Medical College, Philadelphia, 1894, died at his home in Cuba City, Wisconsin, March 26, of cancer of the stomach, aged 43 years. He was a member of the American Medical Association and State Medical Society and had for many years been town health officer.

Northwestern University Notes. Dr. John B. Murphy has resigned as Professor of Surgery and co-head of the Department in Rush Medical College and has accepted the Professorship of Surgery and head of the department in Northwestern University Medical School and position of attending surgeon at Mercy Hospital.

Till Again. The case of the State vs. John Till, the Somerset healer arrested for practicing medicine in violation of the state laws, bids fair to be resurrected. A recent decision of the Supreme Court in another case, has opened the way for the State Board of Medical Examiners to take steps to bring the Till case to actual trial.

The H. K. Mulford Company have published a brochure entitled "Working Bulletin on Bacterial Vaccines and Tuberculin Therapy." These Bulletins contain full information from competent observers and will prove an excellent and reliable working basis. It is the intention of the Mulford Company to issue further editions of the Bulletin as information concerning the subjects under discussion shall develop, thus keeping them up-to-date and of practical service to all concerned.

Removals of Milwaukee Physicians to the new Majestic Building: Drs. Charles Coffey, C. M. Echols, C. S. Fischer, Thos. Fitzgibbon, L. F. Jermain, P. H. Jobse, E. W. Kellogg, Wm. R. Kennedy, J. J. McGovern, P. H. McGovern, A. J. McLeod, B. H. Oberembt, A. J. Taugher, U. O. B. Wingate, C. A. Fidler.

To the Caswell Block: Drs. W. B. Hill, S. D. Johnson, Tupper, Wm. F. Wegge, T. G. Walsh, R. G. Sayle, Leopold Schiller.

Commencements. The graduating exercises of the Wisconsin College of Physicians and Surgeons were held May 28 at Plymouth Church, and were followed by a banquet at the Republican House. The graduating class numbered nine.

The Medical Department of Marquette University graduated a class of forty-three members. The exercises were held at the Davidson Theatre on May 25, and were followed by a memorial dinner for the late Dr. W. H. Earle, held at the Plankinton House and attended by 200 guests.

Dr. H. A. Schmidt Wins. Following two days of argument by counsel, Judge Ludwig of Milwaukee directed a verdict in favor of the defendant in the case of the State against Dr. Henry A. Schmidt of the Medical Electric Light Sanitarium in Milwaukee. The action was a test case brought by the State Board of Medical Examiners to annul the certificates of many practitioners. Atty. A. C. Umbreit, who appeared for the state, contended that the defendant did not have the legal qualifications at the time the certificate was granted and that it was secured by misrepresentation and through error. The case will be taken to the Supreme Court on an appeal.

IN MEMORIAM

DR. WILLIAM H. EARLES.

Dr. William H. Earles was the son of Mr. Michael Earles and was born at Genessee, Wisconsin, on Dec. 19, 1852. When he was yet a young boy his parents moved to the town of Franklin, Manitowoc County, Wisconsin, and there settled down upon a farm, and under the environment of the early pioneer, he laid the foundation for his future career. All of his early impressions were of a sturdy nature, and thus it was that in early youth he was made to realize that whatever success in life he might attain must be the result of his own efforts. Even at this early period his work in the country school gave evidence of a vigorous mentality. His elementary training completed, he became a student at Oshkosh Normal School, and later he continued his studies in the University of Wisconsin, where he was conspicuous as a leader among his fellows. After a short career as a school teacher, he entered Rush Medical College, where he was graduated with the class of 1880. He began the practice of his profession at Wrightstown, Wis., and on June 1, 1882, was married to Miss Percis Day. In 1885 he moved to Milwaukee, and took up the general practice of medicine and surgery. In the year 1889, together with Dr. W. H. Neilson, he founded Trinity Hospital. Following this movement, Dr. Earles' reputation as a surgeon grew very rapidly and in 1893 he founded the Milwaukee Medical College.

It can truthfully be said that this work became the dominating factor in his life and to it he gave freely his time and his talents. Under his care the growth of this institution was phenomenal, but with great foresight and with the idea of making the monument of his life's work a lasting one, he succeeded in making the Milwaukee Medical College a part of Marquette University, and at the time of

his death Dr. Earles was dean of the Medical Department of that institution.

The man who will undertake to write a biography of Dr. Earles with the idea of doing justice to the subject, must realize that he is undertaking a difficult task—difficult in that it is hard for most men to place a just appreciation upon the many brilliant qualities of his mind. Particularly is this true as it relates to the measure of his accomplishments. Judging him by this standard and in the light of achievement in the face of obstacles, we may well say that he has left a great heritage to the future generation. Moreover, his attainments as a surgeon, scientist and educator will stand as a splendid monument to his memory, long after his friends and colleagues have passed away.

His character was many sided. His nature presented a combination of great versatility, large creative faculties, business sagacity of a high order, indomitable will power and more than ordinary ability as an organizer. Dr. Earles had a well balanced mind. He was not given to retrospective worry, and his mental attitude to the world and its affairs was always good. In his presence one always felt that he was a leader among men. A keen student of human nature, he was quick to recognize the true from the false. Likewise he was quick to recognize an error, and like all strong men wasted no time in regrets, but immediately set himself at work to improve existing conditions and create new ones. He was slow to give his friendship, but once having given it, he remained steadfast and true to those who proved themselves worthy of it.

His work is ended. It was rich in fruition, and he died loving and beloved by his family and friends.

WARREN B. HILL, M. D.

PASTEURIZING MILK IN GERMANY.

Consul Samuel H. Shank, of Mannheim, in a report on the good results attending introduction into Germany by Mr. Nathan Straus, of New York, of the system of pasteurizing milk, says the importance of the work may be realized when it is known that 25 per cent. of the children born in Germany die before they are 1 year old. The consul adds:

The fact that 33 per cent. of the cows slaughtered in one German city and 42 per cent. of those slaughtered in another had tuberculosis shows the necessity for exercise of great care in the use of cow's milk as food for infants. It is hoped that through demonstrations being made by Mr. Straus, pasteurization of milk may soon become universal.

Executive Committee
Dr. J. M. BEFFEL
2280 Clybourn St. Milwaukee
Dr. C. H. STEINARD
Goldsmith Bldg. Milwaukee
Dr. G. E. SEAMAN
Goldsmith Bldg. Milwaukee
HOYT E. DEARHOLT
Goldsmith Bldg. Milwaukee
Mrs. H. M. YOUMANS
Waukesha, Wisconsin.

Chairman, PROF. MAZYCK P. RAVENEL.
Vice-Chairman and Secretary Dr. HOYT E. DEARHOLT.
Assistant Secretary, PROF. W. H. FROST.
Treasurer MR. JOHN H. KOPMEIER.

Wisconsin Committee of the International Congress on Tuberculosis.

WASHINGTON, SEPT. 21-OCT. 12, 1908

Executive Committee
Prof. MAZYCK P. RAVENEL
University of Wisconsin
Madison, Wis.
Prof. W. H. FROST
University of Wisconsin
Madison, Wis.
Mr. JOHN H. KOPMEIER
Wells Bldg. Milwaukee
Mr. M. J. TAPPINS, Capitol Bdig
Madison, Wis.

WAR CORRESPONDENCE.

THE EXHIBIT IS TAKING FORM. The general scheme will be along lines sugested by Professor Frost, Assistant Secretary of the Committee. Briefly summarized it will show: distribution and statistics; work on bovine tuberculosis; models and photos of sanatoria, dispensaries, etc.; reports on anti-tuberculosis organizations; educational work and exhibits; sanitary conditions of factories, public buildings, schools, private residences, etc.

Difficulty is being encountered in obtaining statistics on rural tuberculosis. Opportunity for original and invaluable research is therefore offered physicians in every section of Wisconsin.

The Tuberculosis Commission of the Medical Society of Milwaukee County, consisting of the following members: Drs. Eugene Smith, A. W. Gray, Hans Reinhard, N. M. Black, J. L. Yates, C. R. Farnham and O. E. Lademan, has assumed the responsibility of planning and gathering the Milwaukee Exhibit. They are actively at work and have entered into the spirit of the movement to such an extent that great success is assured.

FINANCE. For the purpose of raising the $5,000 fund, the municipalities of the state were assessed varying amounts based upon population. A letter was sent by the Chairman, Dr. Ravenel, and by Dr. Harper, secretary of the State Board of Health, to the mayors and health commissioners, asking them to use their good offices in getting appropriations passed. Several cities have made contributions but not so many as should have. The list to date of writing follows: Hartford—$12, Westby—$8, Auburndale—$7, Darlington—$10, Onalaska—$6, Readstown—$8, Spooner—$9, Sharon—$9, Sheboygan Falls—$9, Two Rivers—$24, Westfield—$9, Viroqua—$12, Oregon—$8, Sun Prairie—$9, Arcadia—$12, Withee—$7, Fountain City—$6, Neshkoro—$4, Cumberland—$8, Sturgeon Bay—$24, Butter-

nut—$8, Albany—$9, Durand—$8, North Milwaukee—$9, Antigo —$36, Clintonville—$8, Boscobel—$9, Walworth—$8, Hancock—$7, Waupun—$18, Fox Lake—$9, New Richmond—$10, Medford—$10, Ellsworth—$9, Columbus—$12, Marion—$8, Elkhart Lake—$7, Oakfield—$5, La Crosse—$80, New Auburn—$7, Fall Creek —$4, Kilbourn City—$9, West Salem—$9, Maiden Rock—$7, Bruce —$8, Friendship—$6, Kendall—$8, Cashton—$8, Black Earth,—$7, Lodi—$9, Wautoma—$9, Iola—$9.25. Total $571.25.

If your city is not represented won't you use your influence with the municipal authorities to get them into the honor list? Milwaukee will be represented by a $1,500 donation, about $500 of which has been actually paid in. The University Regents have appropriated $250.

PUBLIC MEETINGS are being held in various parts of the state and represent a double purpose of education and preliminary campaign work.

COMMENDATION of Wisconsin's activity has recently come from the Washington head-quarters of the Congress. The work of getting the Wisconsin representatives in the United States Congress to take an intelligent and proper view of the importance of the subject of tuberculosis, received special mention. It has been said that the publicity work has not been excelled. Many physicians are interesting editors of local newspapers, who, in turn, are generously giving their aid to the campaign.

MILWAUKEE'S DEATH MAP. If you haven't read the article in the Milwaukee *Sentinel* on May 10th under the above title do so. The "story" was inspired by this committee and gives a series of startling and intensely interesting pictures of Milwaukee conditions. Incidentally, this map will afford an exhibit for the Congress.

"The Cause and Preventon of Consumption" is the title of a circular of the Illinois Board of Health issued in 1908. The booklet of sixty pages has assumed proportions and has a scope not usually accorded to the circulars of state health departments. In reality it is a most excellent popular treatise upon the subject dealing with the danger symptoms, prevention and cure. A considerable amount of space is given to the consideration of climate and the curability of the disease in Illinois.

It is to be regretted that the possibility of milk infection is not given more importance, particularly in view of the misguided discussions in the public press. The text offers what would seem to be

an irresistible argument for the proposed legislation, a consideration of which closes the booklet.

The attractiveness of the little book deserves comment. This is a consideration that is too often slighted in publications of this nature. While the mourning lines of the statistic tables are needed to awaken a sluggish and too complacent public, the purpose is defeated if on the other hand the impression is left that the struggle is anything but a hopeful and encouraging one.

It is hoped that our Wisconsin Board of Health will issue as good a book—in the meantime we presume that a copy may be obtained gratis by an application addressed to Jas. A. Egan, M. D., Secretary, Illinois Board of Health, Springfield, Illinois.

H. E. D.

PURE FOOD REGULATIONS IN CALCUTTA.

Consul-General William H. Michael, of Calcutta, writes as follows in regard to official pure food requirements in the metropolis of India:

Calcutta demands pure butter, ghee, and milk. The health officer has recommended to the market special committee that no substitute for pure butter or pure ghee (a clarified butter) should be permitted to be sold in the new market, and that stall holders for these commodities would render themselves liable to lose their stalls if any materials other than pure butter and pure ghee were sold by them. As regards the sale of adulterated milk, it is proposed that any vendor in the new market who was convicted of selling adulterated milk should be ejected. The markets committee adopted both proposals of the health officer and directed the superintendent of the market to inform the stall holders in writing that they must henceforth give due effect to these proposals. The corporation has since confirmed the view of the markets committee.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1907-1908.

W. E. GROUND, Superior, President.

B. M. Caples, Waukesha, 1st Vice-President

Herman Gasser, Platteville 2d Vice-President.

E. S. HAYES, Eau Claire, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

TERM EXPIRES 1911.	TERM EXPIRES 1908.
1st Dist., H. B. Sears, - - Beaver Dam	7th Dist., Edward Evans, - La Crosse
2nd Dist., G. Windesheim, - - Kenosha	8th Dist., T. J. Redelings, - - Marinette
TERM EXPIRES 1912.	TERM EXPIRES 1909.
3rd Dist., F. T. Nye, - - - Beloit	9th Dist., D. L. Sauerhering, - Wausau
4th Dist., W. Cunningham, - Platteville	10th Dist., E. L. Boothby, - - Hammond
TERM EXPIRES 1913.	TERM EXPIRES 1910.
5th Dist., J. V. Mears, - - Fond du Lac	11th Dist., J. M. Dodd, - Ashland
6th Dist., C. J. Combs, - - Oshkosh	12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, MILWAUKEE, 1908.

The Wisconsin Medical Journal, Official Publication.

SOCIETY PROCEEDINGS.

THE COUNTY RETURNS.

It is now about one month before the Annual Meeting, and much remains to be done of good faithful work if we are to hold our own as compared with former years. As a result of the concentration effected at the last annual meeting, we have now but 53 county societies. Of these but 42 have sent in their annual reports. The total membership returned from these societies, is 1086—a net loss of 159 as compared with 1907. Of this loss, however, 92 is to be charged to Milwaukee, which has sent in only a partial report—leaving a net loss of 67 in the remaining 41 societies. Thus far the following counties report a gain: Trempealeau-Jackson-Buffalo—7; Langlade and Monroe—3 each; Oconto, Outagamie and Winnebago—2 each; Brown and Juneau—1; Eau Claire, Marathon, Marinette, Sauk and Washington are the same as in 1907. From this showing it appears that a large majority of the societies report more or less of a net loss as

compared with last year. From previous experience we may reasonably hope that this will be largely made up before the annual meeting. As has been so often repeated, the issues of the whole matter lie with the county secretaries. Upon their diligence and energy will depend the outcome. Since the adoption of our great plan of organization, we have heretofore shown a consistent gain each year. From all indications we should make a larger gain this year than ever before. As the plan has become better understood and appreciated, far more care has been shown in the selection of county secretaries, resulting in a decided uplift all along the line. Because of this fact more societies have manifested in the past year a genuine life and activity. The medical defense plan, too, is unquestionably showing itself a winning card. This is all encouraging, but, much remains to be done in the coming month. Several societies show a creditable gain, but let us all go to work and if possible come up to the Annual Meeting with a gain in *every* society. In these coming weeks let every secretary go over the ground once more. Make another determined effort to secure the renewal of all the "delinquents." Be sure not to overlook the new material which has come into the county, and give one more urgent invitation to the "eligibles" on the non-membership list. In this good work the State Secretary will help to the best of his ability.

MEDICAL DEFENSE.

The plan of medical defense has been cordially received in almost every county, and from all accounts it bids fair to prove a most potent factor in the permanent success of Medical Organization. In answer to inquiries as to its effect on the membership, the following are some of the replies:

Racine: "The expression of the Society is unanimously in favor of the Medical Defense fee."

Barron-Polk-Rusk: "All the doctors in our Society are very much in favor of the Medical Defense. Think all our members have been more prompt in remitting their dues on account of the benefit to be gained by it."

Fond du Lac: "Some have joined because of Medical Defense, and County members paid more promptly than usual because of it."

Langlade: "All are in favor and each responds very willingly."

Outagamie: "If the adoption of the Medical Defense plan has had any effect on the collection of dues, it has been a favorable one."

Sheboygan: "Do not think we shall lose a single member on account of increased dues, but on the contrary, I am quite confident

that there will be an increase of membership because of the insurance feature."

Buffalo-Trempealeau: "As yet have found no one objecting to Medical Defense. All seem to think it is a good thing at a very reasonable price."

Green Lake-Waushara: "The new system of Defense seems to meet with general favor. Every member remitted cheerfully the additional dollar. I hope to use this as a means of increasing the membership."

Shawano: "We lost no members on account of Medical Defense."

Dunn-Pepin: "No complaints of any consequence on account of Defense feature. Personally think it is a good thing."

Monroe: "They are all pleased with the Medical Defense."

Waukesha: "There seems to be no falling off on account of increase of dues, but a general satisfaction that the State Society is *doing* something."

Winnebago: "I have not heard any 'kicks' on Medical Defense. All seem to favor it except one or two who did not thoroughly understand it. They saw the benefit when it was explained that the best indemnity companies did not pay judgments. The best feature to me, aside from the minimum cost, is that no member would go on the stand against you if you were sued. It is, in a way, a corporation, every member standing back of every other member."

Douglas: "I do not find any difficulty in collecting the extra dollar. No 'kicks.'"

Pierce: "Medical Defense has been well received by most of the members."

Jefferson County has also unanimously adopted the plan.

These are samples of the replies generally received and in but one county has there been expressed opposition, and now this county shows a substantial gain. There has been no loss anywhere, so far as known.

THE ANNUAL MEETING

promises to be one of more than usual interest. The program is about completed and represents some of the very best work and thought of the Society. The Preliminary Program appears in this number of the JOURNAL and speaks for itself. It is hoped that the membership will look up the subjects and come to the meeting prepared to add something of practical interest in the discussions. *Theoretically* this annual meeting is a gathering together the results of the year's work in the different county societies. In this larger gathering let us all

feel the same freedom and interest, and each do his part in making the meeting just as *live* and enthusiastic as we are wont to do in our county societies. We are glad to give a place on the program to several of the professors of the new Medical Department of the State University, and it will be mutually beneficial for us to cultivate the most intimate relations with the department and keep in close touch with its work.

Dr. Cannon, of Boston, who will give the Address in Medicine, is a man of national reputation and adds great strength to the program. An especial feature of the meeting will be a program of clinics in the various hospitals, due notice of which will be given in the June JOURNAL and in the regular program.

The pathologic exhibit has yearly increased in interest, and contributions are earnestly solicited from the whole membership. Specimens, plainly labelled and explained, should be addressed to Dr. J. L. Yates, Eagles' Club House, 137 Second Street, Milwaukee.

As usual, the social features will be emphasized. This gathering from all parts of the State means fully as much in the cultivation of acquaintance and the promotion of good fellowship, as it does for purely scientific work and discussion.

If those who are to present papers have not already done so, they will please send at once to Dr. C. H. Stoddard, Milwaukee, the Chairman of the Program Committee, two or three names as leaders in the discussion of the papers.

The list of delegates is incomplete and the county secretaries are urgently requested to send at once the name of the delegate and alternate, if not already sent.

It is the intention to get out the June JOURNAL in time for the members to receive it before the Annual Meeting—June 24-25-26. It will contain the regular program and full particulars of all features of the meeting. It will be an illustrated number. Aside from this only the regular program will be sent to the members this year.

C. S. S.

PRELIMINARY ANNOUNCEMENT OF COMMITTEE ON ARRANGEMENTS.

The Committee has investigated as to the availability and merits of various halls, and has decided to rent the Eagles' Club House for the occasion. This building is very centrally located on Second Street, south of Grand Avenue. The hall is commodious and answers all the requirements of the meeting, and quarters are ample for the pathologic

and other exhibits. A complimentary banquet to the visiting physicians will be held at the Plankinton House, on the evening of the 25th, and the Milwaukee Medical Society will tender the usual smoker to all the members of the State Society, at its rooms in the Goldsmith Building, on the evening of the 24th.

The Committee will publish its plans in full in the June JOURNAL.

PRELIMINARY PROGRAM.

President's Annual Address.....W. E. Ground, Superior
The Pathologic, Ethic and Forensic Viewpoints on Criminal Abortion.....Wilhelm Becker, Milwaukee
Tuberculosis.....N. L. Howison, Menomonie
The Radical Cure of Inguinal Hernias.. F. Gregory Connell, Oshkosh
Rural Tuberculosis.....Fred Johnson, North Freedom
Chronic Auriculo-Ventricular Heart Block in the Dog.....Jos. Erlanger, Madison
Pathology and Clinical History of Three Cases of Actinomycosis with apparently Direct Contagion.....Louis Falge, Manitowoc
Some Exceptions to the Rules in the Administration of Certain Drugs.....W. G. Kemper, Manitowoc
ANNUAL ADDRESS IN MEDICINE—Some Practical Bearings of Recent Studies of the Physiology of the Digestive Organs—With Stereopticon Illustrations.....Walter B. Cannon, Boston Mass.
Gastro-Enterostomy, Its Indications and Contraindications.....C. J. Habhegger, Watertown
The Open Air Treatment of Pneumonia.....A. J. Patek, Milwaukee
The Present Status of Medical Expert Testimony on Insanity. A Plea for Corrective Legislation.....F. C. Studley, Milwaukee
The Administration of Oxygen for Post-anesthetic Nausea and Vomiting.....R. P. Peairs, Milwaukee
Carcinoma of the Breast.....C. W. Oviatt, Oshkosh
Routes of Invasion in Tuberculosis—Actinomycosis.....M. P. Ravenel, Madison
Anaphylaxis.....Carl W. Smith, Madison
Early Diagnosis of Tuberculosis.....Thos. H. Hay, Stevens Point
Ophthalmia Neonatorum.....S. R. Boyce, Madison
The Etiology, Pathology and Treatment of Acute Chorea.....G. H. Fellman, Milwaukee

The After Care of Obstetrical Cases in a Country Practice.....
.....M. V. DeWire, Sharon
Poliomyelitis.....H. A. Jegi, Galesville
Causal Factors in the Production of Monstrosities.....
.....C. R. Bardeen, Madison
Aspects of the Practice of Medicine of Today.....
.....W. S. Lincoln, Dodgeville

THE PATHOLOGIC EXHIBIT.

Thus far so few notifications have been received from prospective exhibitors that the outlook for a satisfactory display is anything but bright. The general character of specimens desired has already been published.

In order to illustrate the papers on the program, the following material is particularly desirable: early tuberculosis, actinomycosis, tumors of the breast, particularly carcinomata; specimens illustrating changes resulting from anterior poliomyelitis, those showing the results of gastro or entero-enterostomy, those illustrating the effects of abortion, and all forms of monsters, human or animal.

Anyone willing to loan specimens should communicate with Dr. J. L. Yates, Milwaukee, at once, when full information as to date and place of shipment will be supplied.

DANE COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Dane County Medical Society was held at Madison, April 14, 1908, with the Vice-President, Dr. C. A. Harper, in the chair.

After partaking of a dinner the meeting was called to order and the following program presented:

1. *Cardiac Arhythmia due to Experimentally Disturbed Conductivity.* Dr. J. Erlanger, Professor of Physiology, Univ. of Wis.

2. *Purin Metabolism in Gout.* Dr. H. C. Bradley, Professor of Physiological Chemistry, Univ. of Wis.

Dr. Erlanger reviewed the experiments of Gaskell on the effects of blocking the impulse at different levels of the heart of the tortoise, to serve as a basis for comparison with results obtained in experiments on mammals. These results were then shown to be practically identical in that it has been found possible to produce in the case of the mammalian heart sino-auricular, auriculo-auricular, auriculo-ventricular, etc., etc., heart block.

A summary of Dr. Bradley's paper follows: In normal metabolism the nuclear material of the living cell is rapidly broken up into the purin bases adenin and guanin. These in turn are rapidly converted into xanthin and

hypoxanthin, and these yield uric acid. A portion of the uric acid is excreted as such, the remainder is broken still further into urea and ammonia. These transformations are accomplished by certain enzymes found in muscles, liver, kidneys and other organs. Nuclear material ingested with the food is subjected to the same processes of destruction and elimination.

In gout the entire purin metabolism is greatly retarded, apparently from an insufficiency of the enzymes. Uric acid increases in the blood though not in the urine, the purin bases are excreted in larger relative amounts in the urine. Deposition of urate crystals in the synovial sheaths and articular cartilages occurs finally in the paroxysm of the acute attack.

The following resolution was adopted:

Cognizant of the tremendous ravages of consumption and convinced of the truths that tuberculosis (consumption) is a communicable, a preventable and curable disease, we hereby record our endorsement of the efforts that are being made by the National Society for the Study and Prevention of Tuberculosis, The National Congress of Tuberculosis, and the Wisconsin Committee of the International Congress.

It was moved and carried that a local tuberculosis committee of three be appointed.

The question came up for vote whether the meetings in the future be preceded by a supper. The society was unanimously in favor of continuing the suppers.

LOUIS H. FALES, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The fifth regular monthly meeting of the La Crosse County Medical Society was held at the La Crosse Lutheran Hospital on Thursday evening, May 7, 1908. The Society were the guests of Dr. C. Christensen. The meeting was called to order by the president, Dr. T. H. Miller.

Dr. A. Gunderson presented specimens—a uterus with large myoma, and a gall bladder full of gall stones.

The regularly elected delegate of this Society to the meeting of the State Society, Dr. E. Evans, being in Europe, and the alternate, Dr. F. C. Suiter thereby becoming the delegate, Dr. H. E. Wolf was elected to fill the place of alternate delegate.

Dr. C. H. Marquardt read a very interesting paper on *Hygiene*, dealing especially with "sleep" and "air". Dr. C. Christensen read a paper on *Diet*, considering first the chemical composition and caloric value of various food stuffs, and the quantities and relative proportions, necessary for a sufficient diet in health, and then discussing exhaustively the feeding of fever cases. Dr. Christensen's paper was scholarly and showed evidence of much careful preparation.

Dr. H. E. Wolf supplemented Dr. Christensen's paper with a table of the caloric values of various foods.

After a general discussion, Dr. Christensen invited the members present to a study of Dietetics by the laboratory method. Repairing to the dining room of the hospital the nineteen doctors present were seated at tables

prettily decorated with roses and bearing a delicious lunch. None of the doctors appeared dyspeptic, and with many a good story and hearty laugh they appropriated their "Calories." The evening was decidedly a success, socially as well as scientifically, and the members left the hospital with enthusiastic approval of Dr. Christensen's hospitality.

The next meeting will be held on September 3rd, at the new La Crosse Club.

EDWARD N. REED, M. D., *Secretary.*

EAU CLAIRE COUNTY MEDICAL SOCIETY.

The Eau Claire County Medical Society held its regular monthly meeting April 27, 1908, beginning with a supper, which was served at 6:30 P. M., in the peacock room of the new Eau Claire Club.

At 7:30 P. M., the members of the Society and, by invitation, the pharmacists of town, gathered in the Auditorium and listened to an illustrated lecture on the *Manufacture of Serums.* The lecture was well presented, interesting and instructive.

At 8:30 the meeting was called to order by the president, Dr. D. W. Ashum, and the following five minute talks were given:

Anatomy of Stomach, Dr. Mason.

Physiology of Stomach, Dr. Montgomery.

Normal Digestion, Dr. Goddard.

Gastritis, Dr. Farr.

The Test Breakfast, Dr. Werner.

Dr. Werner gave a practical demonstration of the method of obtaining and examining stomach contents, by washing out the stomach of a clinic patient (with a diagnosis of peptic ulcer), and filtering and examining contents.

Dr. Christian Midelfart then read a brief but illuminating paper on the subject: *The Early Diagnosis of Carcinoma of the Stomach*, concluding with these words: "We must *well remember* that when a case is advanced so the tumor can be palpated, it is usually *too late* for operation."

The second paper of the evening on *The Clinical Diagnosis of Autotoxic Syndromes* was read by Dr. Arthur Bowles of Eleva, Wis. The writer said that in differential diagnosis of this condition, the difficult question would be to decide whether dealing with a toxemia or a case of neurasthenia, and that the point of greatest value was that of early morning fatigue; the toxemic got up tired, the neurasthenic had a brief period of aspiration and effort before fatigue supervened.

By request of the Society, the three hospitals of Eau Claire have decided to sell no more hospital tickets with physicians charges included. A message of sympathy was sent from the Society to Dr. John V. R. Lyman ex-president of State Society, in his battle for returning health.

JACOLYN MANNING, M. D., *Secretary.*

JEFFERSON COUNTY MEDICAL SOCIETY.

The Jefferson County Medical Society held its annual meeting at Jefferson, Wisconsin, April 28. 1908.

Dr. H. O. Caswell read a paper on *Traumatic Appendicitis* which was discussed by the members present. Dr. C. J. Habhegger presented a paper on *Treatment of Appendicitis* which was read, in the absence of the author, by the Secretary and was discussed by the members.

The following resolutions on contract practice were unanimously adopted by the society:

Resolved by the Jefferson County Medical Society that no member of the same shall enter into contract price with any society, lodge or association, whereby an indefinite amount of services is required for a fixed fee; further,

Resolved, that any member, who shall enter into such contract practice, shall be expelled from this society; further,

Resolved, that any of the present members of the Jefferson County Medical Society, who now have contracts with any society, lodge or association, shall be allowed a period of three (3) months to either sever their connections with the above named organization as contract physicians, or resign their membership in this society; further,

Resolved, that these resolutions shall not apply to any physicians who receive a salary from the County Board of Supervisors.

The society unanimously adopted the proposition whereby each member in consideration of the payment of one dollar, shall be defended by the State Board's Attorneys against charges of mal-practice, etc.

The following officers were elected: President, Dr. Geo. L. Smith, Jefferson, Wis.; Vice President, Dr. H. O. Caswell, Fort Atkinson; Secretary and Treasurer, Dr. Carl R. Feld, Watertown. Delegate to State Medical Society Meeting: Dr. C. H. Searle, Palmyra.

The next meeting will be held at Lake Mills, Wis., on the last Tuesday of June next. CARL R. FELD, M. D., *Secretary.*

KENOSHA COUNTY MEDICAL SOCIETY.

The Kenosha County Medical Society devoted its May meeting to an effort at enlightening the public as to how best to combat tuberculosis.

Working in conjunction with the committee on tuberculosis, funds were easily obtained from public spirited citizens so that we were able to rent the Rhode Opera House which seats over one thousand people.

Seven hundred tickets for reserved seats were carefully distributed by the various members of the medical profession to people who each one knew would be interested in attending the meeting. In that way it was very thoroughly advertised in addition to the generous support of the Kenosha papers.

President Stalker called the meeting to order and after an invocation by the Rev. Edgar T. Farrell, Dr. Stalker stated the purpose of the meeting and introduced Dr. Windesheim, chairman of the evening.

Dr. C. A. Harper of Madison delivered a very interesting and instructive address on *Tuberculosis.* We were also favored with a short talk by Dr. Hoyt E. Dearholt of Milwaukee. We certainly had an audience of representative citizens, although not nearly as large as it would have been if the weather had not been so stormy. P. P. M. JORGENSEN, M. D., *Secretary.*

BOOK REVIEWS.

Textbook of Medical Physics. Boruttau, H., Prof., Berlin. "Lehrbuch der medicinischen Physik for Studirende & Aerzte zur Ergaenzung jedes Lehrbuches der Experimentalphysik, 282 pp. with 127 illustrations. Leipzig. Verlag von Johann Ambrosius Barth. 1908. Cloth. 9. M. $2.25. The object of this book is to briefly discuss in elementary fashion the facts and theorems of physics as far as they have a bearing on the whole of medicine, particularly the daily increasing special cases of their applications in medicine. With due consideration for the well known aversion of medical students to mathematics, the mathematical treatment is rather suppressed and wherever feasible, supplanted by examples or constructions. The author designates his book as "real, more experimental than theoretical, medical physics in which he avoided all physical bases of biological facts without special interest to medicine, comparative physiological arguments etc., and as a supplement to any text book of physics."

In the introduction physiology is defined as physics and chemistry of living organisms, and, referring to the enlightening influence of physical chemistry, it is emphasized that there is no mere physical or mere chemical standpoint in the scientific methods of organic science and medicine. Then the measuring methods, their errors and exactness, graphical registration, orthodiagraphs, etc., are discussed.

The subject proper is divided into mechanics of solids, liquids, gases, acoustics, heat and thermodynamics, magnetism and electricity and optics. The contents of each paragraph are plainly indicated by larger print, and the discourse is clear and interesting.

B. has filled by his valuable book an actual gap. It will be extremely welcome to every physician of scientific aims and will elucidate matters to him which he does not find elsewhere. A well prepared table of contents, and indices of authors and subjects greatly facilitate orientation in the handsomely gotten up work which deserves a large circulation. C. Zimmermann.

OPIUM TRADE IN CHINA

An imperial decree issued by the Chinese government on March 22 points out the evils of opium, and states that the British government has agreed to decrease its exportation for a trial period of three years in order to see whether the cultivation of the poppy and the number of opium smokers is lessened. Should such be the case, importation into China will be further decreased gradually. The decree orders the enforcement of existing regulations and the elaboration of further measures to deal with the evil.

U. HOLZER
BINDER
BOSTON, MASS.